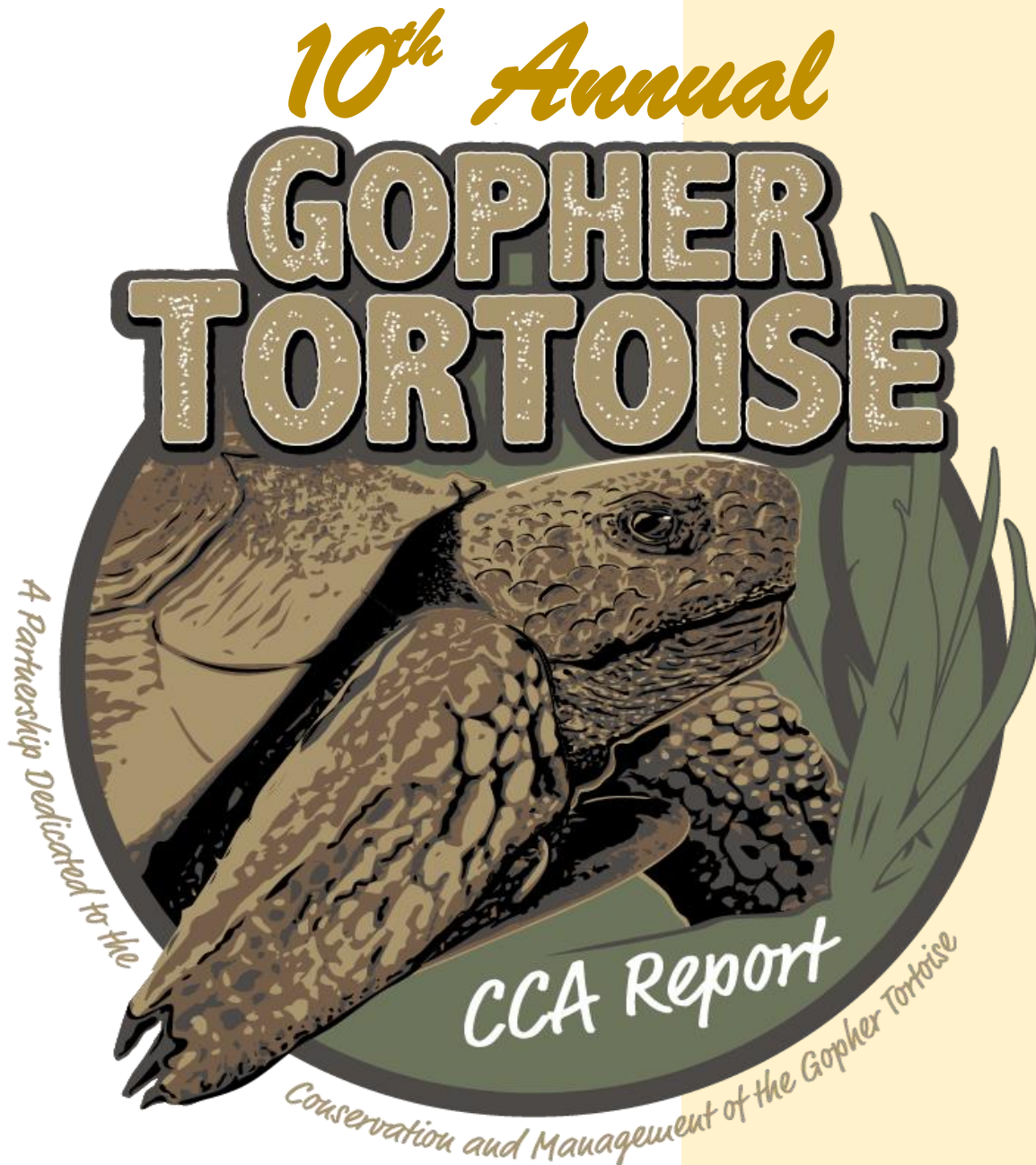


# Candidate Conservation Agreement for the Gopher Tortoise

October 1, 2017 – September 30, 2018



**Submitted to:**

**U.S. Fish and Wildlife Service**

**April 2019**

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## LIST OF ACRONYMS

<b>ADCNR</b>	Alabama Department of Conservation and Natural Resources
<b>AFB</b>	Air Force Base
<b>AFC</b>	Alabama Forestry Commission
<b>AFF</b>	American Forest Foundation
<b>AFR</b>	Air Force Range
<b>AGTHP</b>	Aiken Gopher Tortoise Heritage Preserve
<b>APAFR</b>	Avon Park Air Force Range
<b>BMP</b>	Best Management Practices
<b>CCA</b>	Candidate Conservation Agreement
<b>CCAA</b>	Candidate Conservation Agreement with Assurances
<b>CCAFS</b>	Cape Canaveral Air Force Station
<b>DWFF</b>	Division of Wildlife and Freshwater Fisheries
<b>ESA</b>	Endangered Species Act
<b>FFS</b>	Florida Forest Service
<b>FNAI</b>	Florida Natural Areas Inventory
<b>FWC</b>	Florida Fish and Wildlife Conservation Commission
<b>FWRI</b>	Fish and Wildlife Research Institute
<b>FY</b>	Fiscal year
<b>GDNR</b>	Georgia Department of Natural Resources
<b>GDOT</b>	Georgia Department of Transportation
<b>GIS</b>	Geographic Information System
<b>GSF</b>	Geneva State Forest
<b>GT</b>	Gopher Tortoise
<b>GTHAP</b>	Gopher Tortoise Habitat Assistance Program
<b>GTMP</b>	Gopher Tortoise Management Plan
<b>GTT</b>	Gopher Tortoise Team
<b>HMU</b>	Habitat Management Unit
<b>INRMP</b>	Integrated Natural Resources Management Plan
<b>ITP</b>	Incidental Take Permit
<b>JDMTA</b>	Jonathan Dickinson Missile Tracking Annex
<b>LAP</b>	Landowner Assistance Program
<b>LEEF</b>	League of Environmental Educators in Florida
<b>LIP</b>	Landowner Incentive Program
<b>LLP</b>	Longleaf Pine
<b>LRSF</b>	Little River State Forest
<b>LTDS</b>	Line Transect Distance Sampling
<b>MGGTAI</b>	Management Guidelines for Gopher Tortoises on Army Installations
<b>MOA</b>	Memorandum of Agreement
<b>MOU</b>	Memorandum of Understanding
<b>MTA</b>	Malabar Transmitter Annex
<b>MVP</b>	Minimum Viable Population
<b>NAS</b>	Naval Air Station
<b>NEPA</b>	National Environmental Policy Act
<b>NF</b>	National Forest
<b>NPS</b>	National Park Service
<b>NS</b>	Naval Station

<b>NSA</b>	Naval Support Activity
<b>NSB</b>	Naval Submarine Base
<b>NWR</b>	National Wildlife Refuge
<b>PSA</b>	Public Service Announcement
<b>OBVM</b>	Objective-based Vegetation Management
<b>OLF</b>	Outlying Landing Field
<b>PAFB</b>	Patrick Air Force Base
<b>PFW</b>	Partners for Fish and Wildlife
<b>POC</b>	Point of Contact
<b>REPI</b>	Readiness and Environmental Protection Integration
<b>ROW</b>	Right of Way
<b>SCDNR</b>	South Carolina Department of Natural Resources
<b>SLD</b>	State Lands Division
<b>SMR</b>	State Management Recommendations
<b>SP</b>	State Park
<b>SREL</b>	Savannah River Ecology Laboratory
<b>STEM</b>	Science, Technology, Engineering and Math
<b>SW</b>	Space Wing
<b>SWG</b>	State Wildlife Grant
<b>TES</b>	Threatened and Endangered Species
<b>TPA</b>	Trees Per Acre
<b>TSRHP</b>	Tillman Sand Ridge Heritage Preserve
<b>URTD</b>	Upper Respiratory Tract Disease
<b>U.S.</b>	United States
<b>USAF</b>	United States Air Force
<b>USDA</b>	United States Department of Agriculture
<b>USFS</b>	United States Forest Service
<b>USFWS</b>	United States Fish and Wildlife Service
<b>WEA</b>	Wildlife and Environmental Area
<b>WMA</b>	Wildlife Management Area
<b>WRD</b>	Wildlife Resources Division

## INTRODUCTION

This is the 10<sup>th</sup> annual report for the Gopher Tortoise Candidate Conservation Agreement (GTCCA) that includes data and information from the signatory agencies and organizations to the agreement.

The gopher tortoise (*Gopherus polyphemus*) is endemic to the southeastern United States and has been in population decline in recent years. While the tortoise is federally-listed under the Endangered Species Act (ESA) in the western portion of its range, it is currently a candidate species for listing in the eastern portion which includes Florida, Georgia, South Carolina, and eastern Alabama. The “candidate” species status is a result of a petition to list the species (2006), and the subsequent 12-month finding published by the U.S. Fish and Wildlife Service (USFWS) in July 2011. As a response to the listing petition, stakeholders representing the fish and wildlife agencies of Florida, Georgia, Alabama, and South Carolina, branches of the Department of Defense, and related non-profit organizations drafted and executed a Candidate Conservation Agreement (CCA).

The goal of the CCA is to organize a cooperative range-wide approach to gopher tortoise management and conservation in its eastern range. The CCA allows the signing parties to leverage knowledge and funding within a common conservation approach and framework. The CCA is voluntary and flexible in nature so that various conservation and management actions can be agreed to and implemented at different levels by the signing parties.

Established under the CCA, the Gopher Tortoise Team (GTT) is charged with implementation of the Agreement. The Chair position has rotated among the states throughout the years, giving everyone an opportunity to learn about the implementation and administration of the agreement. The Chair’s responsibilities include organizing the annual meeting of the parties (or assisting another representative with organizing) and compiling the annual report required under the CCA. The Alabama Forestry Commission agreed to compile the 2018 report and Alabama Department of Conservation and Natural Resources will organize the next meeting.

The signatories continue to work together to organize meetings as needed to assess conservation efforts. The Georgia Wildlife Resources Division hosted the signatories on August 15-16, 2018 at the Charlie Elliott Wildlife Center near Mansfield, GA. During the meeting, attendees presented conservation programs and actions currently being implemented by each agency. Discussion was held on changes and/or additions regarding the CCA signatory goals, and the need to update/revise the CCA in the future. Alabama Power and Georgia Power both attended the meeting and became signatories during fiscal year 2018. Both agencies are subsidiaries of the Southern Company and provided reports for the entire fiscal year even though they weren’t full partners until August.

A standardized report format helps support an organized conservation approach and encourages uniform actions and reporting, integration of monitoring and research efforts with management, and support partnership formation. In 2014, the GTT did a minor clean-up to improve consistency in data reported by the signatories. The format is organized to specifically address the 5-factor analysis used by the USFWS when evaluating a species for federal listing under the Endangered Species Act. The addition of tables was included to help streamline the data reported and ensure consistency among parties. It is also intended to help compile and build upon data each year, preventing the USFWS from losing or having to shuffle through older reports to assess the species status. The goal of the reorganized reporting structure is to ensure the information compiled by the CCA parties will be useful to the USFWS when re-evaluating the species as a candidate each year.

The parties contributing to this report collectively own and/or manage more than 1.32 million acres of gopher tortoise habitat in the eastern portion of the species' range. An additional 14,660 acres of habitat was protected through easements and acquisition of public lands. Of those acres, more than 616,563 acres of gopher tortoise habitat was managed using a variety of tools, most commonly with prescribed fire with a large percentage occurring during the growing season. Some habitat was lost due to conversion to non-compatible uses such as solar arrays and other development activities. Gopher tortoises are commonly relocated when at risk or as a result of impending habitat alteration. In Florida, where the FWC manages a comprehensive regulatory program for tortoises, 8,277 tortoises were relocated to protected lands and released into temporary enclosures for a minimum of 6 months. Many of the other parties also relocated tortoises (total of 705) onto protected lands, however, soft release using temporary enclosures is not yet a standardized practice among all parties. Improvements to avoid/minimize the use of hard release is an important conservation practice to implement that, based on scientific studies, results in a greater conservation benefit for the tortoises.

Implementation of the standard population survey methodology, Line Transect Distance Sampling (LTDS), is occurring across the species' range. Significant population data is included in this report and shows many viable populations in both Georgia and Florida occurring mainly on public conservation lands. Some data provided still represents presence/absence as a means to avoid impacts from projects rather than for monitoring populations, however, most if not all parties have implemented LTDS on some level or have plans to do so in the near future.

Comprehensive reports were submitted by each CCA party in February 2018 with the last report received in March for the period covering *October 1, 2017 – September 30, 2018*. Reports were not received from the American Forest Foundation, National Park Service, the United States Army and Marines. A draft of this report was emailed for review to the points of contacts for each party, and all corrections have been incorporated into this final draft.

*It is important to note that not every section of the report is applicable to every party. Parties with no information appropriate to a particular section have indicated this with "not provided," "not applicable," "none," or "none provided this reporting period." Reports were submitted by each party's point of contact and compiled by the Chair with minimal edits.*

*Thank you to all the parties for compiling this information on behalf of their agency and on behalf of gopher tortoise conservation. This annual report continues to be vital for range-wide conservation of this keystone species.*

## EXECUTIVE SUMMARY

### UNITED STATES ARMY

No report received.

### UNITED STATES NAVY

The US Navy has six installations within the eastern range of the Gopher Tortoise (GT) that completed management activities: Naval Submarine Base (NSB) Kings Bay in southeastern Georgia, Naval Air Station (NAS) Jacksonville and Naval Station (NS) Mayport in northeastern Florida, Naval Support Activity (NSA) Orlando (Bugg Springs) in central Florida, and NAS Whiting Field and NAS Pensacola in the western Florida panhandle. NAS Whiting Field also has lands in southern Alabama. Naval Support Activity (NSA) Panama City occurs in the range of the GT but does not support a GT population. All installations have an active and current Integrated Natural Resources Management Plan (INRMP). During this reporting period, the Navy managed 12,522 acres of tortoise habitat, prescribed burned 268 acres, treated 70 acres of invasive plant species by both chemical and mechanical methods, and removed from GT habitat 12 feral hogs, 6 raccoons, 10 coyotes, 24 armadillos, and numerous beavers. Surveying for the GT continues to be an ongoing action. In 2018, it was estimated that 750 tortoises were resident on Navy lands, an increase over the past year due to increased survey activity. Issues with disease were determined to be absent, minimal, or managed. Predation of GT's throughout the region on Navy installations continues to be a concern, but at this time it is believed that the impacts are minimal and the Navy is actively managing predator populations. There was 1 permanent translocation conducted. Community outreach consisted of continued distribution of brochures, posters, informational signage, news articles, and indoctrination training to newly assigned military personnel. No new regulations, laws, or policies were changed or implemented. Relocation and protection requirements were emphasized and enforced at all installations. There were no deviations or additions regarding the CCA Agency Conservation Strategy. Individual installation activities are reported in the following sections where appropriate. Navy GT management addresses the five listing factors identified in section 4 (a) (1) of the Endangered Species Act - - Listing Factor One (present or threatened destruction, modification, or curtailment of the species' habitat or range), Listing Factor Two (overutilization for commercial, recreational, scientific, or education purposes), Listing Factor Three (predation or disease), Listing Factor Four (existing regulatory mechanisms), and Listing Factor Five (other manmade or natural factors affecting the species' continued existence). Navy GT management provided a net benefit to the species and its habitat with regard to all five Listing Factors. No adverse actions were identified in reference to the five Listing Factors for GT populations or habitat on Navy lands.

### US NAVY INSTALLATION OVERVIEW

#### **NSB Kings Bay, GA, POC: Kurt Moseley, kurt.moseley@navy.mil; (912)-573-4678**

Approximately 250 acres of prescribed burning was conducted in 2018. A 45-acre area of slash pine was clearcut and will be replanted and maintained as longleaf pine. Protection of gopher tortoise and associated habitat was provided by removing 12 feral hogs, 6 raccoons, 3 coyotes, and 24 armadillos. A

juvenile tortoise was found dead in a culvert adjacent to the perimeter road on the north side of SUBASE. Because of advanced decomposition, a cause of death could not be determined.

**NS Mayport, FL, POC: Heather Hahn, [heather.hahn@navy.mil](mailto:heather.hahn@navy.mil); (904)-270-6781**

Surveying for Gopher Tortoises was accomplished on 127 acres resulting in discovery of 84 burrows (40 active, 33 inactive and 11 juveniles). The burrows were mapped using ArcGIS. Last year only 12 burrows were discovered. The increase in burrows this year may be partly due to the inability to properly survey the dune line in 2017 due to both Hurricane Irma and Hurricane Matthew's impacts to NS Mayport's coastline. Many burrows were covered in sand and debris left in the area made surveying difficult. Informative signs continue to be posted on dune crossovers for the public. In addition, education is routinely provided during base indoctrination briefings to new personnel that included endangered species topics.

**NAS Jacksonville, FL, POC: Angela Glass, [angela.glass@navy.mil](mailto:angela.glass@navy.mil); (904) 542-2798**

Gopher tortoises are located in mission sensitive areas on NAS Jacksonville, Outlying Landing Field (OLF) Whitehouse and Rodman Range. In addition to Navy-owned lands, gopher tortoise populations occur at the Navy's Pinecastle Range, land leased from the U.S. Forest Service. NAS Jacksonville protects habitat for gopher tortoises through active management of factors such as landscaping and grounds maintenance, invasive species control, and silvicultural activities including forest thinning's, prescribed burning, reforestation, and forest protection. Four coyotes were removed from gopher tortoise habitat at OLF Whitehouse. Beavers were removed from the area as their dams increased flooding in areas that were previously dry. Indoctrination training for 200 newly assigned military personnel included gopher tortoise information and identification. Local schools that visit the Interpretive Center are given an opportunity to see a burrow scope with a "mock" burrow and learn about this keystone species and its habitat; this year 235 students visited the center. Volunteers cleaned up the area around the Interpretive Center, an area that is home to 5 resident gopher tortoises. A volunteer project removed invasive plant species and planted native species in the butterfly garden. Species surveys at Rodman Range included gopher tortoise population and habitat assessment. A total of 73 active burrows were identified and mapped, an increase of 121% from a 2009 survey. Land cover maps were updated to document potential gopher tortoise habitat at Rodman with NAS Jacksonville maps being updated next year.

**NSA Orlando, Bugg Springs Facility, FL, POC: Jeremy Jennings, [jeremy.jennings1@navy.mil](mailto:jeremy.jennings1@navy.mil); (904)542-1412**

The Bugg Springs facility/property consists of ~80 total acres in Okahumpka, FL. The Gopher Tortoises (GT) found on the property are primarily located in the abandoned agriculture field/cleared meadow, residential grounds, and on the edges of the upland hardwood forest. Currently, the Bugg Springs property has 30-40 acres of suitable GT habitat. NSA Orlando protects habitat for GT 's and their associated habitat at the Bugg Springs property through active management of factors such as invasive plant species control and habitat enhancement projects (e.g. mechanical reduction of forest understory). During 2018 activities to improve GT habitat included an Avian and Vegetation Survey which helped identify areas important to the conservation and preservation of the Bugg Springs Gopher tortoise population. It also provided us with maps and data of locations where vegetation management potentially could improve GT habitat. Currently the estimated GT population on the Bugg Springs property is less than ten adults and appears to be stable.



**NAS Whiting Field, FL, POC: Christina Maltiz, christina.malitz@navy.mil; (850) 623-7602**

NAS Whiting Field has a wide-ranging and significant gopher tortoise population with a total of 4,384 acres of GT habitat maintained. Gopher tortoises occur at 10 of 15 installation properties in five counties in Florida and Alabama. Activities during 2018 involved a thorough and complete search of all Navy lands that have suitable habitat or historic data present. To supplement Navy staff, interns from the Student Conservation Association were employed with an emphasis on surveying for new burrows at NAS Whiting Field and NOLFs Barin, Summerdale, Silverhill, Santa Rosa, Harold, Pace and Wolf. Found 14 new burrows that were active and 1 inactive burrow. OLF Santa Rosa had 1 new active burrow, 1 new inactive burrow. OLF Barin had 2 new burrows with GT (scoped). Habitat could be improved by thinning of forest stands and use of more prescribed fire.

**NAS Pensacola, FL, POC: Michael Hardy, mike.hardy@navy.mil; (850) 452-3131 x 3016**

NAS Pensacola has gopher tortoise populations at the main installation, Bronson Field, and Saufley Field. In 2018, AmeriCorps interns from the Student Conservation Association were employed with an emphasis on GT management, inventory, and protection. A comprehensive Gopher Tortoise survey report by the University of Georgia's Savannah River lab was submitted in the summer of 2018. Prescribed burning was accomplished on 18 acres of gopher tortoise habitat, 25 acres of Cogon grass was treated, and three coyotes were removed from areas that were accessible to gopher tortoise habitat. A new 4-acre Translocation Pen was constructed. Translocation plans were implemented to survey and document gopher tortoise in the primary surface clear zones at the NAS Pensacola airfield. One tortoise was translocated from an encroachment area on the airfield to the new fenced gopher tortoise population area on the installation's north side. The installation also continued to provide Navy Region Southeast support by assigning the Environmental Director as the Navy GTCCA point of contact and coordinator.

**UNITED STATES AIR FORCE**

The US Air Force continued its commitment to excellent gopher tortoise management in fiscal year 2018 (FY18) on more than 464,000 acres. Acres actively managed/treated increased in FY18 compared to FY17. Aggressive feral hog removal programs resulted in 575 feral hogs removed from AF properties in FY18; also 82 raccoons and 49 coyotes were removed. Prescribed fire was applied to 104,032 acres, a significant increase over FY17 prescribed burn acres, and nearer the FY10-16 average of 114,160 acres. Installations continue to successfully partner with and rely on the USAF Wildland Fire Branch to achieve prescribed fire goals. Funding remains stable from previous years and installations with gopher tortoises requested and received 56% more than normal funding for invasive species and nuisance wildlife control. Overall, gopher tortoise bases received an additional 10% in FY18 above normal funding levels for natural resources requirements.

Avon Park Air Force Range (APAFR): Management at APAFR consisted of prescribed fire, invasive species treatments, mechanical scrub restoration and intensive feral hog removal. GT population monitoring is conducted every 5 years. A survey of scrub habitats within APAFR was completed in FY16, in addition to an intensive survey of four key habitat sites (two in scrub and two in native flatwoods) to determine demographic parameters of the gopher tortoise population, sex ratio, juvenile and adult survival. One paper was published from prior year work in FY18. The next GT population monitoring effort is programmed for FY21.

Eglin Air Force Base: Eglin AFB continued to manage almost 400,000 acres of potential gopher tortoise habitat. Management tools include prescribed fire, chemical treatment of hardwood midstory, chemical

treatment of invasive plants, control measures for invasive exotic animal species and sand pine removal. 108 Eglin-grown tortoises were relocated to suitable habitat within Eglin, including tortoises from non-viable populations in unmanaged habitats. 702 Incidental Take Permit (ITP) tortoises were translocated from privately owned properties in Florida to Eglin AFB. All tortoises were relocated to sites with enclosures and are held at least six months. Population monitoring documented continued declines for all but one non-viable population. All burrows located were mapped and data collected for each included status, and size. Camera trapping efforts documented breeding attempts by ITP tortoises, adult predation by coyotes and various commensal activity associated with tortoise burrows.

MacDill Air Force Base: Construction of the U.S. Army Reserve Helicopter Bed Down Area, UH-60 ramp, associated facilities, and a new grenade/skeet range resulted in a reduction of total potential gopher tortoise habitat to 1,491 acres. Treatment for non-native invasive plant species occurred on approximately 222 acres of potential gopher tortoise habitat. Gopher tortoise continue to utilize the airfield for foraging and burrow construction. This area was regularly maintained through mowing and other ground maintenance activities. 9 gopher tortoise were temporarily relocated within the installation boundaries due to potential impacts to military operations and/or construction activities and 1 gopher tortoise was permanently relocated due to construction activities. A single deceased gopher tortoise was discovered directly outside the installation's Northern boundary but not located on Air Force property. Notification to the Florida Fish and Wildlife Conservation Commission (FWC) Southwest Gopher Tortoise Biologist was made and proper collection/reporting procedures occurred. No upper respiratory tract disease (URTD) incidents were reported on installation.

Moody Air Force Base: Moody AFB is located 10 miles northeast of the City of Valdosta in Lowndes and Lanier counties in south-central Georgia. Comprising approximately 11,000 acres of federally owned land, the installation includes the main base (5,039 acres), the adjacent Grand Bay Range (5,874 acres), and the Grassy Pond Recreational Annex (489 acres), located 25 miles southwest of the main base. There are approximately 946 acres of gopher tortoise habitat located on the installation. Gopher tortoise management is accomplished through projects identified in the Moody AFB Integrated Natural Resources Management Plan with concurrence by the Georgia Department of Natural Resources and the U.S. Fish and Wildlife Service. Current projects include: seasonal monitoring and surveys of known gopher tortoise populations; disease surveillance for Upper Respiratory Tract Disease; gopher tortoise mark-recapture population demography study; and habitat improvement/restoration through prescribed burning, chemical release, and mechanical means.

Tyndall Air Force Base: Tyndall AFB supports 15,303 acres of potential gopher tortoise habitat. A total burrow count and 100% camera scope of all burrows were conducted for 2018 surveys to determine burrow occupancy. Each burrow is marked and data is collected using ArcGIS Collector in the field. FY18 population estimates are based on previous year's population data and known new recruitment of juveniles. Numerous surveys were conducted prior to timber harvests, potential construction projects, and all fire management practices that involved prepping areas with heavy equipment in areas of suitable habitat throughout the year. Management activities include 7,550 acres that were managed by prescribed burning, roller chopping, longleaf planting, sand pine removal and invasive species treatment. Frequent prescribed fire, predator control, invasive species management, and longleaf pine restoration efforts continue to benefit the gopher tortoise and their potential habitat on Tyndall AFB.

45<sup>th</sup> Space Wing (Patrick Air Force Base [PAFB] and Cape Canaveral Air Force Station [CCAFS]): The 45<sup>th</sup> SW completed surveys for presence/absence in support of various construction, utility, and other miscellaneous projects; completed excavation/bucket trapping and relocation of gopher tortoises in support of projects where gopher tortoise burrows could not be avoided; and completed

restoration/management of gopher tortoise habitat through mechanical cutting of overgrown scrub, prescribed fire, and treatment of invasive flora through mechanical cutting and/or herbicide application. Additionally, 45<sup>th</sup> SW monitored previously treated invasive vegetation to prevent re-growth and removed nonnative and/or nuisance wildlife (raccoons, feral hogs and coyotes) to support protection of threatened and endangered species. 45<sup>th</sup> SW conducted educational outreach through display of gopher tortoise information at 45th SW Family Day, and provided natural resources training to security forces and other AF personnel that conduct off-road activities – gopher tortoise awareness and protection were included in the training.

#### UNITED STATES MARINE CORPS

No Report Received

#### UNITED STATES FOREST SERVICE

Management activities conducted on the Conecuh NF in Alabama and the National Forests in Florida during FY18 for the restoration and maintenance of native fire ecosystems that support gopher tortoise include: timber thinning in mature longleaf stands, timber harvest to restore native over-story species (longleaf), prescribed burning and associated activities (e.g., fire line maintenance), wildlife opening maintenance, mid-story and understory restoration using mechanical and herbicide treatments, road and fire line restoration activities, gopher tortoise surveys, non-native invasive species treatment, and educational efforts through outreach and interpretation.

#### UNITED STATES FISH AND WILDLIFE SERVICE

For FY18, the U.S. Fish and Wildlife Service (FWS) data is being submitted for the National Wildlife Refuges (NWR); those contributing to the annual report include:

**Florida:** Archie Carr NWR (AC); Chassahowitzka NWR (CH); Egmont Key NWR (EK); Everglades Headwaters NWR (EH); Lake Wales Ridge NWR (LWR); Lake Woodruff NWR (LW); Lower Suwannee NWR (LS); Merritt Island NWR (MI); Pelican Island NWR (PI); and St. Vincent NWR (SV).

**Georgia:** Okefenokee NWR (OK)

Archie Carr NWR: No management conducted in 2018 on ACNWR besides 45 acres of potential GT habitat being treated for all Category I and II invasive plant species. No burns or GT surveys conducted in 2018. There is, however, a known/previously surveyed population of GT. This year's report reflects updated information for the refuge. Report only reflects federally owned or managed lands and does not include county owned protected properties within the Archie Carr NWR acquisition boundary.

The Crystal River NWR Complex (CRNWR) is comprised of five refuges: Crystal River, Chassahowitzka, Egmont Key, Pinellas, and Passage Keys NWRs. Only Chassahowitzka and Egmont Key NWRs have gopher tortoises. No gopher tortoise surveys were conducted this year. Exotic plants continue to be treated on Egmont Key and Chassahowitzka refuges and fire ants are controlled on both refuges also.

Everglades Headwaters NWR: The Refuge currently consists of about 7,007 acres (fee: 1,855 acres; easements: 5,152 acres). Management for GT has been limited to treatment of invasive exotic plants. No prescribed burns or GT surveys were conducted in 2018.

Lake Wales Ridge NWR: II. No burns, GT surveys or invasive plant treatments were conducted in 2018.

Lake Woodruff NWR: Refuge continued to manage habitat for gopher tortoises by controlling exotics and prescribed burning.

Lower Suwannee NWR: In 2018, Refuge staff surveyed for gopher tortoises only as a protective measure in areas slated for manipulation – i.e., areas to be logged or cleared for trails, new facilities, etc. Refuge staff were able to apply prescribed fire to 2,774 acres (2,333 acres burned in dormant season, 441 acres in growing season); approximately 1,280 acres of which is good potential gopher tortoise habitat. Refuge staff also treated 135 acres of upland with herbicide for gopher habitat restoration, and treated an additional 90 acres via mechanical means for habitat restoration, and planted 28 acres in longleaf pine.

Merritt Island NWR: Refuge continued to manage habitat for gopher tortoises by controlling exotics and prescribed burning.

Pelican Island NWR: Approximately 34.5 acres of potential gopher tortoise habitat were treated for all Category I and II invasive plant species on Pelican Island NWR. No burns were conducted in 2018 however, monthly surveys were conducted in an area where we actively mow to provide Gopher Tortoise and Southeastern Beach Mouse habitat. Active burrows were given a buffer from mowing to protect from burrow collapse.

St. Vincent NWR: This fiscal year gopher tortoise stewardship consisted of a dormant season prescribed burn, invasive exotic plant removal, and nonnative predator control, e.g., armadillo and feral swine removal. Annual public raccoon and feral hog hunting also benefited gopher tortoise conservation. A dormant season prescribed burn of approximately 2,834 acres of unoccupied gopher tortoise habitat was conducted in November.

Okefenokee NWR: Habitat for gopher tortoises is limited to the area around the refuge's east entrance that is on Trail Ridge and slopes to the Okefenokee Swamp's edge. North of the refuge entrance, the higher sand ridge feature known as Trail Ridge is owned by the USFWS but managed for timber by Forest Investment Associates until 2081. Gopher tortoise burrows continue to be protected on these lands through the timber production activities. A project to widen the refuge entrance road by 3 ft on each side is still being pursued with no actual construction in FY2018. In preparation for this construction activity, refuge staff relocated 1 gopher tortoise that was occupying a burrow along the edge of the road. Tortoises continue to burrow within the road right-of-way and will be relocated as construction activities begin. Three hundred seventy-five acres were prescribed burned within the refuge's Forest Compartment 3, Management Unit 3. In an attempt to control Japanese Climbing Fern along the roadway in this unit, 1 acre was treated with RODEO.

#### ALABAMA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

In Alabama, the gopher tortoise is federally-listed under the Endangered Species Act (ESA) in the western portion of its range (Mobile, Washington and Choctaw counties) and currently a candidate species for listing in the eastern portion, which includes twenty-three southern Alabama counties. Over 95% of the gopher tortoise habitat in Alabama is in private ownership. The State of Alabama permanently protects and manages approximately 22,000 acres of tortoise habitat on public lands including Barbour, Geneva, and Perdido Wildlife Management Areas (WMAs), Fred T. Stimpson and Upper Place Special Opportunity Areas, and Elhew Research Station. The Alabama Department of Conservation and Natural Resources, Division of Wildlife and Freshwater Fisheries (DWFF) and the State Lands Division (SLD) continue to work together to restore and maintain gopher tortoise habitat on DWFF, Forever Wild Land Trust, and SLD lands. Land management conducted by DWFF staff included

8484 acres of prescribed burning, 74 acres of invasive plant species removal, 95 acres of native warm season grass establishment, and 390 acres of thinning. Additionally, 315 feral hogs were removed from DWFF lands. Land management conducted by the SLD, Elhew Research Station personnel included 424 acres of growing season burns and approximately 20 acres of invasive plant species removal.

The DWFF increased education and outreach opportunities to the public promoting gopher tortoise conservation in Alabama. In April Governor Ivey signed a proclamation declaring April 10 as Gopher Tortoise Day in Alabama. Gopher Tortoise Day was celebrated across the state and 5 events took place. Partners included: Birmingham Zoo, Alabama Wildlife Federation, Auburn University Natural History Museum, Auburn University Veterinary School, Poarch Creek Band of Indians and Straughn Elementary School. An educational tortoise was on site at most events, providing participants the opportunity to see up close this incredible animal and learn about its biology and importance as a keystone species. Thousands of Alabama citizens, both adults and youth, participated in hands-on activities that further demonstrated the importance of the tortoise to the longleaf pine ecosystem.

Presentations and workshops were conducted throughout the year on a variety of topics including tortoise biology, protection status, surveys, and best management practices to enhance gopher tortoise habitat. Workshops were conducted for loggers, foresters, private landowners, Poarch Creek Band of Indians and other agencies highlighting the importance of gopher tortoise surveys and why they are needed to assist the USFWS with the upcoming listing decision.

#### FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

Progress on the implementation and completion of conservation actions outlined in the Gopher Tortoise Management Plan (GTMP, September 2012) continue to be achieved. The GTMP guides the continued recovery of the gopher tortoise in Florida through 2022. For this 10-year plan, the overarching objective of no net loss of gopher tortoises will be accomplished by meeting four conservation objectives: minimize loss, increase and improve habitat, enhance and restore populations, and maintain the gopher tortoise's function as a keystone species. The plan presents a suite of conservation strategies and actions that serve to achieve these objectives. The actions are captured under the following broad categories: regulation, permitting, local government coordination, law enforcement, habitat protection, habitat management, population management, disease management, incentives, monitoring, education and outreach and research. Significant progress has been made on completing gopher tortoise surveys using Line Transect Distance Sampling under a contract with the Florida Natural Areas Inventory (FNAI). In 2017, nine surveys on state-owned public conservation lands were completed and included 23,997 acres (9,711 hectares) of suitable gopher tortoise habitat. Seven of the surveys were conducted by the Florida Natural Areas Inventory and two by FWC staff. Of the nine sites surveyed this FY, seven were considered viable and two were primary support populations. Surveys completed under this contract, in addition to FWC staff-led surveys will continue into the next few years. As development in Florida continues to increase, so does the number of gopher tortoises that are relocated. In the past year, more than 8,500 gopher tortoises were relocated from development sites, with most of those tortoises relocated to lands under permanent conservation easements. With the demand for recipient sites high, more than 1,700 new acres were brought in as permitted recipient sites. The FWC continues to work with stakeholders to discuss any new challenges and work together toward possible solutions throughout the implementation of the Gopher Tortoise Management Plan. The continued participation of stakeholders is important to the long-term conservation of the species. The implementation and completion of many management plan actions to protect the gopher tortoise and its habitat has made an impact on the status of the keystone species and continues to show progress toward achieving conservation.

### GEORGIA DEPARTMENT OF NATURAL RESOURCES

The State of Georgia permanently protects 60,104 acres of gopher tortoise habitat on Wildlife Management Areas, Public Fishing Areas, State Parks, and Historic Sites. Land management conducted by GA DNR-WRD personnel beneficial to the gopher tortoise on these properties included prescribed burning of 25,718 acres, thinning or clear-cutting 3,288 acres of off-site planted pines, removal of invasive plant species from 6 acres, planting longleaf pine seedlings on 350 acres, and chemical control of hardwoods on 724 acres. Through the acquisition of several properties now managed as Wildlife Management Areas (WMAs), GA DNR-WRD protected 8,653 new acres of tortoise habitat during the reporting period. Additionally, GA DNR-WRD coordinated a conservation easement with language specific to tortoise conservation that protected another 2,170 acres of prime tortoise habitat. GA DNR-WRD conducted gopher tortoise surveys and population estimates, using line transect distance sampling (LTDS), on nine sites, including four state-owned properties. Three of the sites sampled were resurveys, all of which showed a population increase from their initial survey. 148 gopher tortoises displaced by development were translocated to two protected DNR-WRD lands. Numerous electronic newsletter articles, workshops, social media posts, and events aimed at increasing awareness for gopher tortoise conservation among both professionals and the general public were conducted during the past year.

### SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES

During the 2017-2018 reporting period SCDNR has continued to actively participate in gopher tortoise conservation and management. Both Tillman Sand Ridge Heritage Preserve and Aiken Gopher Tortoise Heritage Preserve have continued management activities for the benefit of the gopher tortoise, including prescribed fire. Additionally, SCDNR and Savannah River Ecology Lab (SREL) continue efforts to establish a MVP at AGTHP, which would be the third in South Carolina.

SCDNR and Savannah River Ecology Lab (SREL) staff continued efforts to restock the AGTHP utilizing waif tortoises and have released more than 300 tortoises to the site (~170 adults). SCDNR continued their study to examine survivorship and movements of hatchling, head-started yearling, and head-started 2-year-old gopher tortoises at the preserve. To date, we have released 133 tortoises (20 hatchlings, 86 yearlings and 27 two-year olds). SREL and SCDNR have concluded the second year of sampling for a collaborative project to examine long-term site fidelity, social integration, and disease status of the AGTHP tortoises. Rebecca McKee (UGA) has finished burrow surveys and trapping of the site and submitted the disease swabs for testing.

Continued restoration has occurred on the 180 acres of restored habitat on Tillman Sand Ridge Heritage Preserve. During the report period, various activities, such as planting of longleaf pine, wiregrass and restoration of other native groundcover has occurred. This effort will provide significant additional acreage for tortoises on the preserve and increase the carrying capacity of the site.

SCDNR continues to be active in the gopher tortoise conservation community. Will Dillman served as the Gopher Tortoise Council Co-Chair and attended the 2018 annual meeting with herpetologist, Andrew Grosse and regional Heritage Preserve Biologists James Fowler and Barry Kesler.

### GEORGIA DEPARTMENT OF TRANSPORTATION

Georgia Department of Transportation assesses habitat and conducts presence/absence surveys for gopher tortoise within proposed project corridors across the species range in numerous counties. GDOT discovered 2 previously unknown gopher tortoise populations during fiscal year 2018:

1. Immediately north of Exit 2 on I-75; over the course of 2 surveys, 47 burrows were noted and 7 individuals, one of which was a juvenile.
2. Vicinity of SR 169 over the Canoochee River; 11 burrows were noted & 5 individuals found.

### POARCH BAND OF CREEK INDIANS

The Poarch Band of Creek Indians is dedicated to preserving the Natural Coastal Plain Ecosystem on its Trust and Fee Properties. With contracts through the NRCS we implement all the best management practices such as Prescribed Burning, Invasive Species Spraying, Optimal Timber Thinning, and the planting of Longleaf Pine. We believe that the Gopher Tortoise is a big part of our Natural Heritage and want to implement all practices that ensure its population on our properties for years to come.

### AMERICAN FOREST FOUNDATION (AFF)

No report received.

### LONGLEAF ALLIANCE

The Longleaf Alliance (LLA) continues to work with multiple partners across the historic range of longleaf to restore and maintain gopher tortoise habitat. LLA staff provides technical expertise, physical assistance, and financial assistance, primarily through cost-share funding, to assist in the restoration efforts. The LLA's on the ground management staff, the Ecosystem Support Team (EST) assists partners with management in Northwest Florida and South Alabama. In 2018, the EST supported prescribed fire on more than 35,000 acres, completed a 100% cruise of more than 600 acres for gopher tortoises, constructed a gopher tortoise pen, completed LTDS training, and treated more than 58 acres of invasive species, all within gopher tortoise habitat.

In South Carolina, LLA provided funding to burn 1,439 acres, establish longleaf on 89.6 acres, and conduct mid-story hardwood removal on 32 acres. The LLA received grants in early 2017 from American Forests and the USFWS Coastal Program as part of their gopher tortoise initiative which includes identifying and working with landowners with gopher tortoises on their property to improve their habitat and partnering with the Savannah River Ecology Lab to head-start up to 100 gopher tortoises for release on public lands. The LLA also received an additional 2-year grant beginning in September 2017 from the National Fish and Wildlife Foundation to increase head started tortoises for release at appropriate sites to 300 and work with landowners to improve their longleaf sites in preparation for receiving tortoises in future years. LLA assisted in the release of 59 head-started gopher tortoises at the Aiken Gopher Tortoise Heritage Preserve and will release 55 more on the same property and a private land in 2019.

In Georgia, LLA provided funding to burn 4,166.4 acres on private lands and 3,743 acres on public lands, restore 20 acres of native groundcover, and plant 14 acres of longleaf seedlings. LLA also provided cost-share to treated 545 acres of hardwood midstory encroachment to improve or enhance habitat for gopher tortoises for GADNR through a USFWS Coastal Programs grant. LLA also applauds the effort creating the Georgia Sentinel Landscape and continues to have a seat on the Executive Committee.

In Alabama, LLA is working to conduct and fund LTDS surveys on private lands as well as broaden awareness of forest operations around gopher tortoises.

#### JOSEPH W. JONES ECOLOGICAL RESEARCH CENTER

We continued to manage uplands with prescribed fire on 12076.8 acres of habitat. Gopher tortoise surveys using line transect distance sampling are scheduled for 2022. We will survey portions of the site in 2019-2020 to determine if timber salvage activities following Hurricane Michael have impacted tortoise populations.

#### ALABAMA FORESTRY COMMISSION

The Alabama Forestry Commission (AFC) manages eight state forests within the gopher tortoise's (GTs) range. Geneva State Forest (GSF) and Little River State Forest (LRSF) are the largest two and provide permanent protection for GTs. These two state forests total 9,363 acres, GSF is 7,200 acres and LRSF is 2,163 acres. GSF has AFC personnel permanently stationed there, while LRSF utilizes surrounding county personnel to conduct operations. It is one of AFC's objectives to continue improving GT habitat on GSF and LRSF lands through prescribed burning, timely timber stand thinning and removal of hardwood mid-story where applicable, creating and maintaining useful forest openings, planting longleaf pine on applicable sites and conducting final harvests as needed. Geneva State Forest is managed for natural regeneration of longleaf pine by using shelterwood harvest. The forest is managed on a 72-year rotation. Additional information is listed in the following sections.

The majority of work AFC personnel conduct is for private landowners. There are 9,021,520 acres of timberland within the GT's native range in Alabama. Of these timberland acres 96.5%, or 8,711,638 acres, are privately owned. AFC has foresters and rangers available to assist landowners in all 21 counties within the GT candidate range. AFC provides GT habitat management recommendations to landowners during site visits, stand management recommendations, and in Stewardship Forest Management Plans. Other forms of landowner assistance provided that benefit GTs include invasive species control recommendations and prescribed burning.

#### NATIONAL PARK SERVICE

No Report Received

#### ALABAMA POWER COMPANY

During March and April of 2018, Alabama Power Company (Alabama Power) collaborated with many personnel from state and federal entities involved with the Coastal Headwaters Forest Partnership to conduct a gopher tortoise survey on 238 acres of Resource Management Systems' (RMS) property in Bay Minette, AL. The state and federal agencies involved in the survey include the following: Alabama Department of Conservation and Natural Resources (ADCNR), Natural Resource Conservation Service (NRCS), United States Department of Agriculture (USDA), and Alabama Forestry Commission (AFC). Thirty-seven burrows were observed, and 14 of the burrows were occupied by gopher tortoises. The Distance 6.2 software program was used to create a Line Transect Distance Sampling (LTDS) survey design and the estimated gopher tortoise population was 20.

Alabama Power has also participated in the Alabama Tortoise Alliance (ALTA) meetings and the Gopher Tortoise Candidate Conservation Agreement (GTCCA) meetings to stay current on listing decisions and discuss best management and conservation practices with state and federal agencies.



GEORGIA POWER COMPANY

Although Georgia Power did not become an official participant in the GTCCA until August, 2017, we are reporting for the entire 12-month period. Georgia DNR completed line-distance transect sampling at plants Hatch and Vogtle. Both of these nuclear-powered electricity generation facilities provide occupied tortoise habitat adjacent to occupied habitat on conservation lands and contribute significantly to local populations. Land management activities benefitting tortoise habitat continued, including prescribed fire, mid-story vegetation control, and pine stand thinning.

**RELEVANT ACTIVITIES TO LISTING FACTOR A (THE PRESENT OR THREATENED DESTRUCTION, MODIFICATION, OR CURTAILMENT OF THE SPECIES' HABITAT OR RANGE)**

ARMY

No report received.

NAVY

- a) How much potential gopher tortoise habitat does the signatory agency directly own or manage?
- i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

12,522

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory agency (put n/a if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2009	12,140	N/A	N/A
2010	12,140	N/A	N/A
2011	12,140	N/A	N/A
2012	12,140	N/A	N/A
2013	12,140	N/A	N/A
2014	12,140	N/A	N/A
2015	12,357	N/A	N/A
2016	12,182	N/A	N/A
2017	12,522	N/A	N/A

2018	12,522	N/A	N/A
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- b) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.

Total estimated gopher tortoise habitat acres managed on Navy lands remains relatively stable. Some acreage was added for 2018 due to surveying discoveries and reclamation of land area formerly not suitable. Prescribed burning was accomplished, but on a far less scale than desired due to military mission and weather factors. Surveying and identification of areas continued as well as protection of gopher tortoises and habitat by removing predators, invasive species, and identification of burrows for safety in mowing and construction areas. Community outreach and education efforts continued. See the Navy Executive Summary for the full narrative.

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

Report year		*Total acres restored or maintained as GT habitat	Acres burned - growing season	Acres burned - dormant season	Acres of invasive species treated	Acres managed (e.g., mechanical, longleaf planting)
2009	Owned or managed lands	1819	194	1,295	68	262
	**Other lands	N/A	N/A	N/A	N/A	N/A
2010	Owned or managed lands	1501	180	1,108	63	150
	**Other lands	N/A	N/A	N/A	N/A	N/A
2011	Owned or managed lands	517	64	191	155	107
	**Other lands	N/A	N/A	N/A	N/A	N/A
2012	Owned or managed lands	463	7	65	262	129
	**Other lands	N/A	N/A	N/A	N/A	N/A
2013	Owned or managed lands	956	187	663	57	49
	**Other lands	N/A	N/A	N/A	N/A	N/A
2014	Owned or managed lands	2837	42	2,621	117	57
	**Other lands	N/A	N/A	N/A	N/A	N/A
2015	Owned or managed lands	1439	60	110	409	860
	**Other lands	N/A	50+	200+	N/A	N/A

2016	Owned or managed lands	2809	175	268	75	135
	**Other lands	N/A	N/A	N/A	N/A	N/A
2017	Owned or managed lands	1035	0	877	50	108
	**Other lands	N/A	N/A	N/A	N/A	N/A
2018	Owned or managed lands	338	0	268	25	45
	**Other lands	N/A	N/A	N/A	N/A	N/A

\* The *Total acres restored or maintained as GT habitat* should be the sum of the succeeding 4 columns.

\*\*Other gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement.

#### AIR FORCE

a) How much potential gopher tortoise habitat does the signatory agency directly own or manage?

- i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory agency (put n/a if not applicable)

Report year	Protected lands (Public)*	Protected lands (Private)	Other lands owned or managed by the agency
2009	101		470,840
2010	101		457,965
2011	151		457,292
2012	190		456,733
2013	190	21,100	456,674
2014	190	22,806	456,630
2015	190	22,806	464,368*
2016	190	22,806	464,368*
2017	190	23,306	464,261*
2018	190	23,306	464,187

\* Corrected; previous acreage report was incorrect.

- b) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.

Avon Park AFR: Prescribed fire (14,298 acres), Cogongrass treatments (512 acres), scrub restoration (520 acres) and feral hog removal (307).

Eglin AFB: Prescribed fire (81,798 acres), chemical treatment of hardwood midstory and sandpine removal (4,307 acres), invasive species treatments (1,835 acres), and feral hog (251) and coyote (30) removal.

MacDill AFB: Prescribed fire (92 acres), Non-native invasive plant species control (222 acres), and mechanical treatment removing woody midstory (20 acres).

Tyndall AFB: Prescribed fire (6,920 acres), longleaf pine restoration efforts (450 acres), invasive species control (180 acres), and predator control (48 animals).

45<sup>th</sup> SW: Prescribed fire (799 acres), Invasive species treated (536 acres), mechanical treatments including roller chopping, hydro-ax, v-saw, and tree cutting (437 acres), resurvey and herbicide treatments in areas previously treated for invasive species to prevent regrowth, and removal of nuisance wildlife (81 animals).

- i. Total estimated gopher tortoise habitat acres managed on "owned or managed lands" or "other lands" for reporting agency/organization.

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

Report year		*Total acres restored or maintained as GT habitat	Acres burned - growing season (%)	Acres burned - dormant season (%)	Acres of invasive species treated	Acres managed (e.g., mechanical, longleaf planting)
2009	Owned or managed lands	21,945	4,000 (45%)	4,946 (55%)	7,430	Unk.
	**Other lands					
2010	Owned or managed lands	147,466	34,946 (26%)	100,346 (74%)	2,506	9,668
	**Other lands					
2011	Owned or managed lands	113,654	31,151 (31%)	68,124 (69%)	2,056	14,423
	**Other lands	10			10	
2012	Owned or managed lands	124,219	35,669 (32%)	76,703 (67%)	3,470	11,551
	**Other lands					
2013	Owned or managed lands	128,738	53,234 (46%)	63,368 (54%)	3,578	11,179
	**Other lands					
2014	Owned or managed lands	129,294	39,186 (34%)	75,564 (66%)	3,076	11,468
	**Other lands					
2015	Owned or managed lands	128,529	59,664 (50%)	58,583 (50%)	5,378	8,269
	**Other lands					
2016	Owned or managed lands	106,746	46,406 (45%)	56,176 (55%)	2,542	3,256
	**Other lands					
2017	Owned or managed lands	96,297	53,498 (62%)	33,276 (38%)	3,029	6,491
	**Other lands					
2018	Owned or managed lands	113,081	45,338(44%)	58,694(56%)	3,285	5,764
	**Other lands					

\*The *Total acres restored or maintained as GT habitat* should be the sum of the succeeding 4 columns.

\*\*Other gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement.

MARINES

- a) How much potential gopher tortoise habitat does the signatory agency directly own or manage?
- i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory agency (put n/a if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2017	1,200	NA	NA
2018			

- b) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.
- i. Total estimated gopher tortoise habitat acres managed on "owned or managed lands" or "other lands" for reporting agency/organization.

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

Report year		*Total acres restored or maintained as GT habitat	Acres burned - growing season (%)	Acres burned - dormant season (%)	Acres of invasive species treated	Acres managed (e.g., mechanical, longleaf planting)
2016	Owned or managed lands	1,200	264	267	200	0
	**Other lands					
2017	Owned or managed lands	1,200	0	138	50	0
	**Other lands					
2018	Owned or Managed Lands					
	**Other lands					

\*The *Total acres restored or maintained as GT habitat* should be the sum of the preceding 4 columns.

\*\*Other gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement

USFS

- a) How much potential gopher tortoise habitat does the signatory agency directly own or manage?
- i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory agency (put n/a if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2009	60,000		
2010	60,000		
2011	60,000		
2012	221,448		
2013	221,448		
2014	221,448		
2015	221,448		
2016	221,531		
2017	221,625		
2018	221,708		

- b) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.

Management activities conducted on the Conecuh NF in Alabama and the National Forests in Florida during FY18 for the restoration and maintenance of native fire ecosystems that support gopher

tortoise include: timber thinning in mature longleaf stands, timber harvest to restore native over-story species (longleaf), prescribed burning and associated activities (e.g., fire line maintenance), wildlife opening maintenance, mid-story and understory restoration using mechanical and herbicide treatments, road and fire line restoration activities, gopher tortoise surveys, non-native invasive species treatment, and educational efforts through outreach and interpretation.

- i. Total estimated gopher tortoise habitat acres managed on “owned or managed lands” or “other lands” for reporting agency/organization.

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

Report year		*Total acres restored or maintained as GT habitat	Acres burned - growing season (%)	Acres burned - dormant season (%)	Acres of invasive species treated	Acres managed (e.g., mechanical, longleaf planting)
2012	Owned or managed lands	35,721	30,354 (85%)	5,357 (15%)	60	?
	**Other lands					
2013	Owned or managed lands	76,776	48,851 (64%)	27,817 (36%)	173	?
	**Other lands					
2014	Owned or managed lands	103,809	38,370 (46%)	45,433 (54%)	126	15,171
	**Other lands					
2015	Owned or managed lands	79,761	29,178 (46%)	34,893 (54%)	201	9,091
	**Other lands					
2016	Owned or managed lands	88,010	33,778	45,939	397	7,896
	**Other lands					
2017	Owned or managed lands	85,430	17,176	14,785	1,120	52,349
	**Other lands					
2018	Owned or managed lands	175,960	67,913	86,362	1,152	20,533
	**Other lands					

\*The *Total acres restored or maintained as GT habitat* should be the sum of the succeeding 4 columns.

\*\*Other gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement.



USFWS

a) How much potential gopher tortoise habitat does the signatory agency directly own or manage?

- i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

**Egmont Key NWR** totals 328 acres (fee title), but due to erosion, the islands is estimated to be about 250 acres currently. The entire island is gopher tortoise habitat. An inholding within Egmont Key NWR of 6.54 acres is owned by Hillsborough County and leased to the Tampa Bay Pilots Association. This area is marked as private property with no public access. It is not under a gopher tortoise management plan, but the gopher tortoises are protected.

On **Chassahowitzka NWR**, a total of 30 acres of uplands (long leaf pine) is gopher tortoise habitat surrounding the Chassahowitzka maintenance shop and is owned fee title and managed. One gopher tortoise was seen on the 57-acre Three Sisters Springs unit of Crystal River NWR in 2018. The habitat was a forested wetland in the 1940s. In the 1960s and 1970s, the trees were cleared and an 8-acre, 40-ft. deep manmade lake was dug to provide fill for development. The property was saved from development, bought by the City of Crystal River and the Southwest Florida Water Management District (SWFWMD) and turned over to USFWS to manage. The habitat is slowly being restored. The SWFWMD had created a 6-acre wetland treatment area and the uplands will be restored over time.

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory agency (put n/a if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2016	SV: 6,117 PI: 363 MI: 88,751 LS: 4,855 LW: 2,400 EK: 260 CH: 35 EH: 1,500 HS: 315 AC: 2,000 LWR: 1,900 DD: 37  <b>Total: 108,533 acres</b>	EK: 6.5 EH: 3,500          <b>Total: 3,506.5 acres</b>	n/a
2017	AC – 200 CH – 30 EK – 250	EK – 6.5 EH – 4,440	<b>OK – 982</b>

	EH – 1,855 HS – 315 DD – 37 LWR – 1,900 LW – 2,400 LS – 4,855 MI – 88,751 PI – 250 SM – 10,928 SV – 6,117 OK – 470  <b>TOTAL = 118,358</b>	<b>TOTAL = 4,446.5</b>	
2018	AC – 200 CH - 30 EK – 260 EH – 1,855 LWR – 1,900 LW – 2,400 LS – 4,855 MI – 88,751 PI – 250 SV – 6,117 OK – 470  <b>TOTAL = 107,088</b>		

b) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.

- i. Total estimated gopher tortoise habitat acres managed on "owned or managed lands" or "other lands" for reporting agency/organization.

**Egmont Key NWR** - 5 acres of Australian pine and Brazilian pepper within a total of 39 acres were treated with herbicides by Florida Park Service staff, who cooperatively manages the island with USFWS.

**Everglades Headwaters NWR** protected about 7,007 acres through fee title or easement acquisitions. Although no GT surveys or prescribed fires were conducted, about 10 acres were treated for invasive exotic plants.

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

Report year		*Total acres restored or maintained as GT habitat	Acres burned - growing season (%)	Acres burned - dormant season (%)	Acres of invasive species treated	Acres managed (e.g., mechanical, longleaf planting)
2016	Owned or managed lands	AC: 350 EK: 6 CH: 35 EH: 1,200 HS: 315 LWR: 841 LW: 1,391 LS: 4,855 MI: 10,645 SV: 5,476 DD: 37 <b>Total: 25,151</b>	LWR: 350 LS: 4,030 MI: 60% (no acreage) SV: 1000  <b>Total: 5,380</b> (not incl. MI)	LW: 100 LS: 825 MI: 40% (no acreage) SV: 4,466  <b>Total: 5,391</b> (not incl. MI)	AC: 114 EK: 6 EH: 1,200 HS: 154 LWR: 491 LW: 2 MI: 26 PI: 363 SV: 10 DD: 37 <b>Total: 2,403</b>	CH: 35
	**Other lands	EH 3,500 EK 6.5 <b>Total: 3,506.5</b>			EK 6.5	
2017	Owned or managed lands	AC – 200 CH – 30 EK – 16.2 EH – 62 HS – 5 DD – 37 LWR – 350 LW – 108 LS – 1,889 MI – 5,424 PI – 250 SM – 852 SV – 857 OK – 378  <b>TOTAL = 10,458.2</b>	LS – 1,620 MI – 11 SV – 10  <b>TOTAL = 1,641 (43.6%)</b>	LW – 100 LS – 127 MI – 89 SM – 582 SV – 847 OK – 378  <b>TOTAL = 2,123 (56.4%)</b>	EK – 15 EH – 62 HS – 5 DD – 37 LWR – 350 LW – 2 LS – 30 MI – 39 PI – 230  <b>TOTAL = 770</b>	AC – 200 CH – 30 EK – 1.2 LW – 6 LS – 112 MI – 5,285 PI – 20 SM – 270  <b>TOTAL = 5,924.2</b>
	**Other lands	EK – 6.5			EK – 6.5	
	Owned or managed lands	AC – 45 EK – 5 LW – 1,000 LS – 4,855 MI – 1,007 PI – 56.5	LW-60(60%) LS-441(16%)  Total 501ac (8% of total)	LW-40(40%) LS-2,333(86%) SV-2,834 OK-375(100%)  Total =5,582ac	AC – 45 EK – 5 LW – 2 LS – 25 MI – 459 PI – 34.5	LW – 36 LS – 253 PI – 22  Total=311

2018		SV – 2,844 OK – 470  Total = 10,282.5		(92% of total)	SV – 10 OK – 1  Total=581.5	
	**Other lands	OK - 982				

\*The *Total acres restored or maintained as GT habitat* should be the sum of the succeeding 4 columns.

\*\*Other gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement.

#### ALABAMA DCNR

a) How much potential gopher tortoise habitat does the signatory agency directly own or manage?

- i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory agency (put n/a if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2016	19103		0
2017	20354	0	0
2018	21168	0	0

b) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.

Management activities conducted during FY18 include:

- Barbour WMA – conducted 2226 acres dormant season burns, 220 acres warm season burns, thinned 115 acres, treated 30 acre of invasive plant species, clearcut 128 acres, and 80 acres of mechanical hardwood understory removal.
- Geneva WMA - conducted 807 acres dormant season burns, thinned 275 acres, treated 3 acre of invasive plant species, 85 acres of mechanical hardwood understory removal of and established 85 acres of native warm season grasses.
- Fred T. Stimpson Special Opportunity Area – conducted 322 acres dormant season burns, established 10 acres of native warm season grasses and treated 12 acres of invasive plant species.

- Upper State Special Opportunity Area – conducted 146 acres dormant season burns, treated 9 acres of invasive plant species.
  - Perdido River WMA – conducted 580 acres growing season burns, 4183 acres dormant season burns, and treated 20 acres of invasive plant species.
  - Land management conducted by the SLD, Elhew Research Station personnel included 281 acres of growing season burns.
- i. Total estimated gopher tortoise habitat acres managed on “owned or managed lands” or “other lands” for reporting agency/organization.

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

Report year		*Total acres restored or maintained as GT habitat	Acres burned - growing season (%)	Acres burned - dormant season (%)	Acres of invasive species treated	Acres managed (e.g., mechanical, longleaf planting)
2016	Owned or managed lands	4667	2168	1200	84	1215
	**Other lands	4465	0	220	60	4185
2017	Owned or managed lands	4892	1420	3041	78	353
	**Other lands					
2018	Owned or managed lands	9617	1081(11%)	7684 (80%)	74 (1%)	778 (8%)
	**Other lands					

\*The *Total acres restored or maintained as GT habitat* should be the sum of the succeeding 4 columns.

\*\*Other gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement.

#### FLORIDA FWCC

- a) How much potential gopher tortoise habitat does the signatory agency directly own or manage?

A potential gopher tortoise habitat model, created by FWC’s Fish and Wildlife Research Institute (FWRI), was used to gather data on where potential gopher tortoise habitat occurs on FWC-managed lands. The model was updated in 2016 by the Gopher Tortoise Conservation Program to include improved pasturelands as potential habitat. For the current reporting year (FY18), acres reported in the following table represent the current cumulative total acreage of potential gopher tortoise habitat in each category.

- i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory agency (put n/a if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2009	n/a	n/a	n/a
2010	n/a	n/a	n/a
2011	104,485	n/a	n/a
2012	150,872	n/a	n/a
2013	143,784	8,740	257
2014	145,931	n/a	n/a
2015	177,533	9,944	219
2016	180,960	14,021	n/a
2017	180,958	14,021	n/a
2018	180,948	14,021	n/a

- b) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.

The FWC and other state agencies have completed prescribed burns and exotic species removal across the state. The FWC's Objective-based Vegetation Management (OBVM) system was queried to gather data on lands by management activity, i.e., prescribed burns, mechanical treatments, planting, and invasive species removal/treatments. For FY18, the acres of gopher tortoise habitat reported include LAP acres managed for the purposes of Conservation, Wildlife, and Forestry (5,101 acres) and acres managed via the FWC's Gopher Tortoise Habitat Assistance Program (GTHAP; 450 acres). Data in Table 2 report estimates of acres burned during the dormant season (October-March) and growing season (April-September).

- i. Total estimated gopher tortoise habitat acres managed on “owned or managed lands” or “other lands” for reporting agency/organization.

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

Report year		*Total acres restored or maintained as GT habitat	Acres burned - growing season (%)	Acres burned - dormant season (%)	Acres of invasive species treated	Acres managed (e.g., mechanical, longleaf planting)
2009	Owned or managed lands	6,104	1,461	4,643		
	**Other lands	52	n/a	n/a	n/a	n/a
2010	Owned or managed lands	25,389	15,162	12,426	1,847	
	**Other lands	72,318	n/a	41,221	31,097	
2011	Owned or managed lands	62,327	11,479	10,042	382	
	**Other lands	60,031	41,421	18,610	n/a	n/a
2012	Owned or managed lands	60,322	27,264	15,682	6,880	
	**Other lands	63,580	36,241	27,339	n/a	n/a
2013	Owned or managed lands	304,423	138,345	166,078		
	**Other lands	83,918	35,377	47,793	513	
2014	Owned or managed lands	67,485	15,356	16,809	23,452	11,868
	**Other lands	32,929	169		136	722
2015	Owned or managed lands	210,877	48,985 (45%)	59,862 (55%)	64,137	37,893
	**Other lands	53,251	29,149 (58%)	21,123 (42%)	495	2,484
2016	Owned or managed lands	229,680	55,708 (50%)	55,394 (50%)	57,072	61,506
	**Other lands	22,386	10,317 (51%)	10,005 (49%)	481	1,583
2017	Owned or managed lands	217,696	32,594 (36%)	57,065 (64%)	86,341	42,696
	**Other lands	6,130	1,470 (26%)	4,090 (74%)	281	289
2018	Owned or managed lands	238,650	29,743 (43%)	68,320 (57%)	107,617	32,970

	**Other lands	5,768	1,912 (33%)	2,848 (67%)	250	758
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\*The *Total acres restored or maintained as GT habitat* should be the sum of the succeeding 4 columns.

\*\*Other gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement.

#### GEORGIA DNR

a) How much potential gopher tortoise habitat does the signatory agency directly own or manage?

- i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory agency (put n/a if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2009	30,889	n/a	n/a
2010	31,692	n/a	n/a
2011	31,716	n/a	n/a
2012	31,716	n/a	n/a
2013	32,840	n/a	n/a
2014	39,641	n/a	n/a
2015	40,525	n/a	n/a
2016	46,192	n/a	n/a
2017	51,451	n/a	n/a
2018	60,104	n/a	n/a



b) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.

- i. Total estimated gopher tortoise habitat acres managed on "owned or managed lands" or "other lands" for reporting agency/organization.

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

Report year		*Total acres restored or maintained as GT habitat	Acres burned - growing season (%)	Acres burned - dormant season (%)	Acres of invasive species treated	Acres managed (e.g., mechanical, longleaf planting)
2009	Owned or managed lands	22,899	305 (2%)	17,865 (98%)	758	3,971
	**Other lands	0	0	0	0	0
2010	Owned or managed lands	19,622	1,360 (9%)	14,326 (91%)	10	3,926
	**Other lands	10,690	?	10,210 (seasons not reported)	0	480
2011	Owned or managed lands	19,644	1,830 (11%)	15,487 (89%)	417	1,910
	**Other lands	3,862	?	3,333 (seasons not reported)	379	150
2012	Owned or managed lands	18,005	3,543 (24%)	11,315 (76%)	300	2,847
	**Other lands	6,291	?	5,776 (seasons not reported)	30	485
2013	Owned or managed lands	21,781	3,189 (17%)	15,601 (83%)	2,211	780
	**Other lands	7,427	4,026 (55%)	3,314 (45%)	0	87
2014	Owned or managed lands	32,714	8,343 (34%)	16,048 (66%)	1,003	7,320
	**Other lands	2,127	829 (39%)	1,298 (61%)	0	0
2015	Owned or managed lands	26,162	5,725 (30%)	13,459 (70%)	815	6,163

	**Other lands	3,752	2,502 (67%)	1,250 (33%)	0	0
	Owned or managed lands	26,285	7,882 (36%)	14,158 (64%)	91	4,154
2016	**Other lands	4,380	1,487 (37%)	2,513 (63%)	0	380
	Owned or managed lands	24,145	9,062 (47%)	10,359 (53%)	44	4,680
2017	**Other lands	640	335 (52%)	305 (48%)	0	0
	Owned or managed lands	29,631	14,104 (55%)	11,338 (45%)	6	4,183
2018	**Other lands	276	87	189	0	0

\*The *Total acres restored or maintained as GT habitat* should be the sum of the succeeding 4 columns.

\*\*Other gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement.

**NOTE:** Our burn data do not break down acreages by habitat. As a result, the burn acreages given here unfortunately over-estimate tortoise habitat burned by including all habitats within burn units. However, all burn units used in these calculations contain tortoise habitat.

#### SOUTH CAROLINA DNR

- a) How much potential gopher tortoise habitat does the signatory agency directly own or manage?
- i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory agency (put n/a if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2012	3059		
2013	3124		
2014	3124		
2015	3124		
2016	3124	~450 (deed restriction)	

2017	3124	~450 (deed restriction)	
2018	3124	450	

b) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.

i. Total estimated gopher tortoise habitat acres managed on "owned or managed lands" or "other lands" for reporting agency/organization.

TSRHP -1437 acres

AGTHP -1687 acres

Total= 3124 acres

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

Report year		*Total acres restored or maintained as GT habitat	Acres burned - growing season (%)	Acres burned - dormant season (%)	Acres of invasive species treated	Acres managed (e.g., mechanical, longleaf planting)
2012	Owned or managed lands	3059	337	476		245
	**Other lands					
2013	Owned or managed lands	3124	93	487		
	**Other lands					
2014	Owned or managed lands	3124	0	395		
	**Other lands					
2015	Owned or managed lands	3124	350	613		300
	**Other lands					
2016	Owned or managed lands	3124	0	550		
	**Other lands					
2017	Owned or managed lands	3124	544	175		43.5
	**Other lands					
2018	Owned or managed lands	3124	31	254		180
	450					

\*The *Total acres restored or maintained as GT habitat* should be the sum of the succeeding 4 columns.

\*\*Other gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement.

### GEORGIA DOT

a) How much potential gopher tortoise habitat does the signatory agency directly own or manage?

- i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory agency (put n/a if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2013	1492 acres	0 acres	55* acres
2014	1492 acres	0 acres	55 acres
2015	1492 acres	0 acres	55 acres
2016	1492 acres	0 acres	55 acres
2017	1492 acres	0 acres	55 acres
2018	1,492 acres	0 acres	0 acres

- a) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.

Management activities on GADOT owned properties were performed by GADNR and is included in their report.

- i. Total estimated gopher tortoise habitat acres managed on "owned or managed lands" or "other lands" for reporting agency/organization.

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

Report year		*Total acres restored or maintained as GT habitat	Acres burned - growing season (%)	Acres burned - dormant season (%)	Acres of invasive species treated	Acres managed (e.g., mechanical, longleaf planting)
2013	Owned or managed lands	Unknown	Unknown	Unknown	Unknown	None
	**Other lands	Unknown	Unknown	Unknown	Unknown	None
2014	Owned or managed lands	750 acres	200 acres (27%)	550 acres (73%)	700 acres	None
	**Other lands	None	None	None	None	None
2015	Owned or managed lands	700 acres	500 acres (71%)	200 acres (29%)	Unknown	180 acres^
	**Other lands	None	None	None	None	None
2016	Owned or managed lands	1050 acres	None	1050 acres (100%)	Unknown	280 acres^
	**Other lands	None	None	None	None	None
2017	Owned or managed lands	280 acres	None	280 acres (27%)	Unknown	None
	**Other lands	None	None	None	None	None
2018	Owned or managed land					
	**Other lands					

\* The *Total acres restored or maintained as GT habitat* should be the sum of the preceding 4 columns.

\*\*Other gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement.

^ Acres managed were also burned, so figures from this column are not included in the sum of the left-most column: "Total acres restored or maintained as GT habitat."

**NOTE:** All burns on GDOT properties were carried out by GADNR. These acreages are included within the GADNR data as well.

#### POARCH BAND OF CREEK INDIANS

- a) How much potential gopher tortoise habitat does the signatory agency directly own or manage?
  - i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory agency (put n/a if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2016		11,895	
2017		12,845	
2018		14,645	

b) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.

i. Total estimated gopher tortoise habitat acres managed on "owned or managed lands" or "other lands" for reporting agency/organization.

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

Report year		*Total acres restored or maintained as GT habitat	Acres burned - growing season (%)	Acres burned - dormant season (%)	Acres of invasive species treated	Acres managed (e.g., mechanical, longleaf planting)
2016	Owned or managed lands			25%	100-150	200
	**Other lands					
2017	Owned or managed lands			25%	100-150	100
	**Other lands					
2018	Owned or managed lands			25%	100-150	
	**Other lands					

\*The *Total acres restored or maintained as GT habitat* should be the sum of the preceding 4 columns.

\*\*Other gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement.

#### AMERICAN FOREST FOUNDATION

No report received.

LONGLEAF ALLIANCE

a) How much potential gopher tortoise habitat does the signatory agency directly own or manage?

- i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

None reported.

b) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.

- i. Total estimated gopher tortoise habitat acres managed on "owned or managed lands" or "other lands" for reporting agency/organization.

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

Report year		*Total acres restored or maintained as GT habitat	Acres burned - growing season (%)	Acres burned - dormant season (%)	Acres of invasive species treated	Acres managed (e.g., mechanical, longleaf planting)
2017	Owned or Managed Lands					
	** Other Lands	40,485	12,187	27,379	363	556
2018	Owned or Managed Lands					
	** Other Lands	45,378.3	24,851.4	19768	58.3	700.6

JONES CENTER

a) How much potential gopher tortoise habitat does the signatory agency directly own or manage?

- i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise) **16,976 ac (6870ha)**

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory agency (put n/a if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2009	N/A	16,976 ac (6870 ha)	N/A

2010	N/A	16,976 ac (6870 ha)	N/A
2011	N/A	16,976 ac (6870 ha)	N/A
2012	N/A	16,976 ac (6870 ha)	N/A
2013	N/A	16,976 ac (6870 ha)	N/A
2014	N/A	16,976 ac (6870 ha)	N/A
2015	N/A	16,976 ac (6870 ha)	N/A
2016	N/A	16,976 ac (6870 ha)	N/A
2017	N/A	16,976 ac (6870 ha)	N/A
2018	n/a	16,976 ac (6870 ha)	N/A

- b) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.

12,076.85 acres of habitat were managed with prescribed fire in 2018.

- i. Total estimated gopher tortoise habitat acres managed on "owned or managed lands" or "other lands" for reporting agency/organization.

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

Report year		*Total acres restored or maintained as GT habitat	Acres burned - growing season (%)	Acres burned - dormant season (%)	Acres of invasive species treated	Acres managed (e.g., mechanical, longleaf planting)
2012	Owned or managed lands	11,991 ac	3964.1 ac (33.2%)	7976.2 ac (66.8%)	N/A	51 ac
	**Other lands	N/A	N/A	N/A	NA	N/A
2013	Owned or managed lands	13,125 ac	3441.9 ac (26.3%)	9645.1 ac (73.7%)	N/A	38 ac



	**Other lands	N/A	N/A	N/A	N/A	N/A
2014	Owned or managed lands	12,425 ac	786 ac (6%)	11,579 ac (94%)	N/A	60 ac
	**Other lands	N/A	N/A	N/A	N/A	N/A
2015	Owned or managed lands	12,974.4 ac	2528.7 ac (19.6%)	10382.0 ac (80.4%)	N/A	63.6
	**Other lands	N/A	N/A	N/A	N/A	N/A
2016	Owned or managed lands	13,091.2 ac	†2920.4 ac (22.3%)	10170.8 ac (77.7%)	N/A	N/A
	**Other lands	N/A	N/A	N/A	N/A	N/A
2017	Owned or managed lands	12,962.6 ac	2797.3 ac (22%)	10127.3 ac (78%)	N/A	N/A
	**Other lands	N/A	N/A	N/A	N/A	N/A
2018	Owned or managed lands	12,076.8 ac.	1141.1 (9.4%)	10935.8 (90.6%)	N/A	N/A
	**Other lands	N/A	N/A	N/A	N/A	N/A

\*The *Total acres restored or maintained as GT habitat* should be the sum of the succeeding 4 columns.

\*\*Other gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement.

†Note: Growing season burns occurred from May-September; dormant season burns occurred from January-April.

#### ALABAMA FORESTRY COMMISSION

a) How much potential gopher tortoise habitat does the signatory agency directly own or manage?

- i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

AFC actively manages a total of 9,363 acres of state land. Geneva State Forest and Little River State Forest are 7,200 and 2,163 acres, respectively. There are 741 acres of state forest land that are managed less intensively.

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory agency (put n/a if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2014	9,363	N/A	741
2015	9,363	N/A	741
2016	9,363	N/A	741

2017	9,363	N/A	741
2018	9,363	N/A	741

- b) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.

Geneva State Forest: AFC personnel prescribe burned approximately 1,592 and 120 acres on Geneva State Forest during the dormant and growing seasons, respectively. Twenty-six miles of fire lanes were installed or refreshed. Tortoise burrows were marked in one unit prior to timber harvesting to minimize risk of heavy equipment causing burrow collapse. Approximately 2.5 acres of cogongrass were treated and eradicated. One landowner tour focusing on gopher tortoise habitat was conducted. The Geneva County schools participated in Classroom in the Forest, one of the presentations was on GTs and sandhill habitats. Eighty five 5<sup>th</sup> grade children attended the two-day event.

Little River State Forest: AFC personnel installed and/or refreshed 11.3 miles of fire lanes. Seven hundred fifty four acres were prescribed burned during the dormant season.

Private Landowner Report: It is important to capture and convey the accomplishments that are being achieved on private lands. Not all the accomplishments completed on private lands were aimed directly at GT habitat management, however indirectly they could improve the habitat for the tortoise. During the reporting period, AFC personnel conducted 218 prescribed burns for a total of 12,595 acres. This acreage includes dormant and growing season understory and site preparation burns. AFC personnel wrote 85 Stewardship Management Plans for 11,192 acres. AFC personnel wrote a variety of stand management recommendations (SMRs) for landowners; these included recommendations on thinning, harvesting, planting pines, prescribed burning, and timber stand improvement. AFC also performs compliance/practice checks for cost share and financial assistance programs such as the Conservation Reserve Program and Environmental Quality Incentives Program. The combined total acreage of land that AFC either performed compliance/practice checks on or wrote SMRs for was 56,166 acres. Invasive species detection, control recommendations, and control verification are also provided to landowners. AFC detected, made control recommendations, and verified eradication of invasive species on 8,300 acres.

- i. Total estimated gopher tortoise habitat acres managed on "owned or managed lands" or "other lands" for reporting agency/organization

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

Report year		*Total acres restored or maintained as GT habitat	Acres burned - growing season (%)	Acres burned - dormant season (%)	Acres of invasive species treated	Acres managed (e.g., mechanical, longleaf planting)
2014	Owned or managed lands					
	**Other lands					
2015	Owned or managed lands	781.5	600 110 – site prep	60	Cogongrass 11.5 ac.	110
	**Other lands	15,651.51	N/A	14,353.61	372.2	925.7
2016	Owned or managed lands	2,362.1	1580 240 – site prep	540	Cogongrass 12.1 ac.	200 – LLP 30 - Slash
	**Other lands	14,972.94	14,350.17***		395.46	227.31
2017	Owned or managed lands	1,395	600	790	5	0
	**Other lands	15,545	13,741		1,072***	732
2018	Owned or managed lands	2,526	852	1617	5	52
	**Other lands	12,872	12,620		252	

\*The *Total acres restored or maintained as GT habitat* should be the sum of the preceding 4 columns.

\*\*Other gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement.

\*\*\* 275 acres of cogongrass, 23 acres of kudzu, 774 acres of invasive control verified through CRP

#### NATIONAL PARK SERVICE

No report received.

#### ALABAMA POWER COMPANY

- a) How much potential gopher tortoise habitat does the signatory agency directly own or manage?

Alabama Power either owns or manages roughly 30,000 acres of transmission line rights-of-way easements within eastern and western ranges of gopher tortoise. For easements that are not owned by Alabama Power, the company follows Best Management Practices (BMPs) to reduce impacts in gopher tortoise habitat; however, following BMPs does not mean that we fully “protect” easements since we can’t control access or impacts from the property owner.

- i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory agency (put n/a if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2018	n/a	n/a	30,000

- b) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.

The section of this report is not applicable.

- i. Total estimated gopher tortoise habitat acres managed on "owned or managed lands" or "other lands" for reporting agency/organization.

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

Report year		*Total acres restored or maintained as GT habitat	Acres burned - growing season (%)	Acres burned - dormant season (%)	Acres of invasive species treated	Acres managed (e.g., mechanical, longleaf planting)
2018	Owned or managed lands					
	**Other lands					

\*The *Total acres restored or maintained as GT habitat* should be the sum of the preceding 4 columns.

\*\*Other gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement.

#### GEORGIA POWER COMPANY

- a) How much potential gopher tortoise habitat does the signatory agency directly own or manage?  
Approximately 4,200 acres

- i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise) none yet

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory agency (put n/a if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2018	n/a	n/a	Approximately 4,200

- b) Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes. Beneficial habitat management continued, including prescribed burning, mid-story hardwood control (125 acres), and pine thinning (80 acres). There was also some mammalian predator control.

The section of this report is not applicable.

- i. Total estimated gopher tortoise habitat acres managed on "owned or managed lands" or "other lands" for reporting agency/organization.

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

Report year		*Total acres restored or maintained as GT habitat	Acres burned - growing season (%)	Acres burned - dormant season (%)	Acres of invasive species treated	Acres managed (e.g., mechanical, longleaf planting)
2018	Owned or managed lands	1,380		1,175		205
	**Other lands					

\*The *Total acres restored or maintained as GT habitat* should be the sum of the preceding 4 columns.

\*\*Other gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement.

## LAND CONSERVATION

### ARMY

No report received.

### UNITED STATES NAVY

- i) Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat.

Table 3. New acres of potential gopher tortoise habitat protected

Report year	Public conservation lands	Private lands under permanent conservation easement	Military installation lands (buffer areas)	Other lands protected by short-term easement, MOU, or similar
2009			N/A	
2010			N/A	
2011			N/A	
2012			N/A	
2013			N/A	
2014			N/A	
2015			N/A	
2016			N/A	
2017			N/A	
2018			N/A	

- ii) Total acres of land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/temporary). If data is not available, enter “unknown”.

Table 4. Acres of land/ gopher tortoise habitat lost that is under the direct ownership of the signatory agency.

Report year	Acres lost	Cause	Permanent or Temporary
2009	N/A	N/A	N/A
2010	N/A	N/A	N/A
2011	N/A	N/A	N/A
2012	N/A	N/A	N/A
2013	N/A	N/A	N/A
2014	N/A	N/A	N/A
2015	435	Solar panel projects at NSB King's Bay	Permanent
2016	300	Solar panel project at NAS Pensacola and NAS Whiting Field (Saufley Field and NOLF Holley)	Permanent
2017	Unknown Acres (NAS Jacksonville and NS Mayport)	Hurricane Matthew and Hurricane Irma	Temporary
2018	450	Solar Panel project at NAS Pensacola	Permanent

#### AIR FORCE

- i) Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat.

Table 3. New acres of potential gopher tortoise habitat protected

Report year	Public conservation lands	Private lands under permanent conservation easement	Military installation lands (buffer areas)	Other lands protected by short-term easement, MOU, or similar
2009	101	0	0	0
2010	0	0	0	0
2011	50	0	0	0
2012	39	0	0	0
2013	0	21,000	0	0
2014	0	1,706	0	0
2015	0	0	0	0
2016	0	0	0	0
2017	0	500	0	0
2018	0	0	0	0

- ii) Total acres of land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/temporary). If data is not available, enter “unknown”.



Table 4. Acres of land/ gopher tortoise habitat lost that is under the direct ownership of the signatory agency.

Report year	Acres lost	Cause	Permanent or Temporary
2009	610	Construction	Permanent
2010	448	Construction	334 Permanent, 114 Temporary
2011	673	Construction	Permanent
2012	634	Construction	559 Permanent, 75 Temporary
2013	110	Construction	59 Permanent, 51 Temporary
2014	59	Construction, Mowing	54 Permanent, 5 Temporary
2015	37	Construction	22 Permanent, 15 Temporary
2016	336	Construction, Site Restoration	Temporary
2017	90	Construction	Permanent
2018	74	Construction	Permanent

#### MARINES

- i) Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat.

No Report Received

Table 3. New acres of potential gopher tortoise habitat protected

Report year	Public conservation lands	Private lands under permanent conservation easement	Military installation lands (buffer areas)	Other lands protected by short-term easement, MOU, or similar
2016	NA	NA	NA	NA
2017	NA	NA	NA	NA
2018				

- ii) Total acres of land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/temporary). If data is not available, enter “unknown”.

No Report Received

Table 4. Acres of land/ gopher tortoise habitat lost that is under the direct ownership of the signatory agency.

Report year	Acres lost	Cause	Permanent or Temporary
2016	NA	NA	NA
2017	NA	NA	NA
2018			

USFS

- i) Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat.

Table 3. New acres of potential gopher tortoise habitat protected

Report year	Public conservation lands	Private lands under permanent conservation easement	Military installation lands (buffer areas)	Other lands protected by short-term easement, MOU, or similar
2013	0	0	0	0
2014	0	0	0	0
2015	0	0	0	0
2016	83	0	0	0
2017	94*	0	0	0
2018	83*	0	0	0

\*Conecuh National Forest purchased 2 tracts totaling 83 acres during FY18.

- ii) Total acres of land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/temporary). If data is not available, enter "unknown".

Table 4. Acres of land/ gopher tortoise habitat lost that is under the direct ownership of the signatory agency.

Report year	Acres lost	Cause	Permanent or Temporary
2016	0		
2017	0	N/A	N/A
2018	0	N/A	N/A

USFWS

- i) Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat.

Table 3. New acres of potential gopher tortoise habitat protected

Report year	Public conservation lands	Private lands under permanent conservation easement	Military installation lands (buffer areas)	Other lands protected by short-term easement, MOU, or similar
2016	HS – 40 ac			
2017	EH – 351	EH – 223		
2018		EH - 712		

- ii) Total acres of land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/temporary). If data is not available, enter “unknown”.

EK: Egmont Key has suffered severe erosion along the north, west, and southeast beaches due to hurricanes, high winds, shipping traffic, and sea level rise in 2018. Approximately 80,000 cubic yards of sand was deposited on Egmont key in November 2018 during a beach restoration project but was terminated early due to reaching the limit on take for sea turtles. The island was 328 acres (fee title) in 1974, but now may be 260 acres.

Table 4. Acres of land/ gopher tortoise habitat lost that is under the direct ownership of the signatory agency.

Report year	Acres lost	Cause	Permanent or Temporary
2016	EK – Dozens; actual unknown	EK – Erosion due to storm tides and sea level rise	Unknown
2017	EK: Dozens; actual unknown  PI: 113	<b>EK:</b> erosion due to storm tides, high waves from wind, and sea level rise.  <b>PI:</b> Acres not “lost”; habitat was re-assessed and fewer acres determined to be suitable	<b>EK:</b> Hopefully temporary, but historic loss permanent. Hurricane Irma hit the west coast of Florida September 11, 2017.  <b>PI:</b> Permanent

2018	EK – Dozens (actual unknown)	EK – erosion due to storm tides, high waves from wind, and sea level rise	
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ALABAMA DCNR

- i) Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat.

Table 3. New acres of potential gopher tortoise habitat protected

Report year	Public conservation lands	Private lands under permanent conservation easement	Military installation lands (buffer areas)	Other lands protected by short-term easement, MOU, or similar
2015	3629 Geneva SF			1001
2016	5725 Geneva SF			653.3
2017	--	--	--	2892.8
2018	23*			

\* 23 acres were added to Perdido WMA

- ii) Total acres of land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/temporary). If data is not available, enter “unknown”.

Unknown.

Table 4. Acres of land/ gopher tortoise habitat lost that is under the direct ownership of the signatory agency.

Report year	Acres lost	Cause	Permanent or Temporary
2014	No acres lost during this reporting period.		
2015	No acres lost during this reporting period.		

2016	No acres lost during this reporting period.		
2017	unknown		
2018	No acres lost this FY		

FLORIDA FWCC

- i) Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat.

Of public conservation lands protected in FY18, 906 acres comprise potentially suitable gopher tortoise habitat; these lands were primarily acquired via Florida Forever. One newly permitted privately-owned recipient site was placed under perpetual conservation easement and comprises 521.6 acres of gopher tortoise habitat. A previously permitted and protected privately-owned recipient site has added a second phase and placed an additional 706.5 acres of gopher tortoise habitat under conservation easement during FY18. Additionally, 481.4 acres of gopher tortoise habitat were placed under easement as part of the Old Town Creek Watershed Florida Forever project. Three new Memorandum of Agreements (MOAs) were entered into between the FWC and Camp Blanding Joint Training Center, Florida Forest Service, and a local government that designated new gopher tortoise recipient site comprising 117.6, 53.9, and 232.5 acres of gopher tortoise habitat, respectively, for a cumulative total of 404 acres.

Table 3. New acres of potential gopher tortoise habitat protected

Report year	Public conservation lands	Private lands under permanent conservation easement	Military installation lands (buffer areas)	Other lands protected by short-term easement, MOU, or similar
2009	n/a	719	n/a	n/a
2010	n/a	1,214	n/a	n/a
2011	n/a	1,115	n/a	n/a
2012	n/a	1,789	n/a	n/a
2013	n/a	5,595	20,800	1,631

2014	n/a	3,370	n/a	n/a
2015	52	2,745	n/a	n/a
2016	n/a	417.43	n/a	2,443
2017	2,619	2,237	n/a	59
2018	906	1,709	n/a	404

- ii) Total acres of land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/temporary). If data is not available, enter "unknown".

Table 4. Acres of land/ gopher tortoise habitat lost that is under the direct ownership of the signatory agency.

Report year	Acres lost	Cause	Permanent or Temporary
2009	Unknown	n/a	n/a
2010	Unknown	n/a	n/a
2011	Unknown	n/a	n/a
2012	Unknown	n/a	n/a
2013	Unknown	n/a	n/a
2014	Unknown	n/a	n/a
2015	82.7	FWC is developing a public shooting park and hunter education center at Triple N Ranch Wildlife Management Area, resulting in a loss of gopher tortoise habitat	Permanent
2016	n/a	n/a	n/a

2017	11.53	Tenoroc Wildlife Management Area Shooting Range Clubhouse facilities	Permanent
2018	n/a	n/a	n/a

GEORGIA DNR

- i) Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat.

8,653 acres of gopher tortoise habitat was protected through the acquisition of what is currently known as the Lanahassee Tract, as well through additions to Ohoopee Dunes WMA, Sandhills WMA, and Chattahoochee Fall Line WMA. An additional 2,170 acres of tortoise habitat on private property was permanently protected through a conservation easement with specific requirements for beneficial tortoise habitat management and restoration.

Table 3. New acres of potential gopher tortoise habitat protected

Report year	Public conservation lands	Private lands under permanent conservation easement	Military installation lands (buffer areas)	Other lands protected by short-term easement, MOU, or similar
2009	600	3,172	n/a	0
2010	803	4,756	n/a	0
2011	24	1,662	n/a	0
2012	0	2,507	n/a	0
2013	865	5,944	n/a	0
2014	4,152	1,480	n/a	0
2015	884	841	n/a	0
2016	5,563	0	n/a	0



2017	5,931	0	0	0
2018	8,653	2,170	n/a	0

- ii) Total acres of land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/temporary). If data is not available, enter “unknown”.

Table 4. Acres of land/ gopher tortoise habitat lost that is under the direct ownership of the signatory agency.

Report year	Acres lost	Cause	Permanent or Temporary
2009	None		
2010	None		
2011	None		
2012	None		
2013	None		
2014	None		
2015	None		
2016	None		
2017	None		
2018	None		

SOUTH CAROLINA DNR

- i) Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat.

Table 3. New acres of potential gopher tortoise habitat protected

Report year	Public conservation lands	Private lands under permanent conservation easement	Military installation lands (buffer areas)	Other lands protected by short-term easement, MOU, or similar
2016		450 acres – “Slater”		Unknown – one easement on old MWV property “Whitener Tract” 140 acres may still be under easement
2017	0	0	0	Unknown
2018	0	0	0	Unknown

- ii) Total acres of land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/temporary). If data is not available, enter “unknown”.

Table 4. Acres of land/ gopher tortoise habitat lost that is under the direct ownership of the signatory agency.

Report year	Acres lost	Cause	Permanent or Temporary
2016	None	None	None
2017	None	None	None
2018	None	None	None

GA DOT

- i) Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat.

Table 3. New acres of potential gopher tortoise habitat protected

Report year	Public conservation lands	Private lands under permanent conservation easement	Military installation lands (buffer areas)	Other lands protected by short-term easement, MOU, or similar
2013	None	None	None	None
2014	None	None	None	None
2015	None	None	None	None
2016	None	None	None	None
2017	None	None	None	None
2018	None	None	None	None

- ii) Total acres of land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/temporary). If data is not available, enter "unknown".

Table 4. Acres of land/ gopher tortoise habitat lost that is under the direct ownership of the signatory agency.

Report year	Acres lost	Cause	Permanent or Temporary
2013	None	None	None
2014	None	None	None
2015	None	None	None

2016	None	None	None
2017	None	None	None
2018	None	None	None

POARCH BAND OF CREEK INDIANS

- i) Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat.

None reported.

- ii) Total acres of land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/temporary). If data is not available, enter "unknown".

None reported.

AMERICAN FOREST FOUNDATION

No report received.

LONLEAF ALLIANCE

- iii) Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat.

None reported.

- iv) Total acres of land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/temporary). If data is not available, enter "unknown".

None reported.

JONES CENTER

- i) Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat. N/A

Table 3. New acres of potential gopher tortoise habitat protected

N/A

- ii) Total acres of land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/temporary). If data is not available, enter "unknown".

N/A

Table 4. Acres of land/ gopher tortoise habitat lost that is under the direct ownership of the signatory agency.

Report year	Acres lost	Cause	Permanent or Temporary
2009	0	N/A	N/A
2010	0	N/A	N/A
2011	0	N/A	N/A
2012	0	N/A	N/A
2013	0	N/A	N/A
2014	0	N/A	N/A
2015	0	N/A	N/A
2016	0	N/A	N/A
2017	0	N/A	N/A
2018	0	N/A	N/A

#### ALABAMA FORESTRY COMMISSION

- i) Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat.

Table 3. New acres of potential gopher tortoise habitat protected

N/A

- ii) Total acres of land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/temporary). If data is not available, enter "unknown".

Table 4. Acres of land/ gopher tortoise habitat lost that is under the direct ownership of the signatory agency.

None

NATIONAL PARK SERVICE

No report received.

ALABAMA POWER COMPANY

- i) Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat. N/A
- Electric power delivery rights-of-way must be accessed with heavy machinery periodically for construction and maintenance, and in emergency situations to restore power. The following practices are observed in order to minimize impacts to gopher tortoises during these activities.
  - Survey segments of ROWs prior to construction/maintenance to detect and mark burrows (i.e., sign, cone, flagging, etc.)
  - Maintain GIS database of gopher tortoise burrow locations
  - Implement BMPs specifying buffer zones, matting criteria, etc. to help reduce risk to tortoises and burrows (translocation if necessary in coordination with USFWS)
  - Continue training field crews to avoid disturbance of wildlife, particularly rare species, including the gopher tortoise
  - Identify and collaborate with private landowners on conservation efforts, where practicable

Table 3. New acres of potential gopher tortoise habitat protected

Report year	Public conservation lands	Private lands under permanent conservation easement	Military installation lands (buffer areas)	Other lands protected by short-term easement, MOU, or similar
2018				

- ii) Total acres of land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/temporary). If data is not available, enter "unknown".

The section of this report is not applicable.

Table 4. Acres of land/ gopher tortoise habitat lost that is under the direct ownership of the signatory agency.

Report year	Acres lost	Cause	Permanent or Temporary
2018	Unknown		

#### GEORGIA POWER COMPANY

- i) Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat.

Table 3. New acres of potential gopher tortoise habitat protected

Report year	Public conservation lands	Private lands under permanent conservation easement	Military installation lands (buffer areas)	Other lands protected by short-term easement, MOU, or similar
2018	0	0	0	0

- ii) Total acres of land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/temporary). If data is not available, enter "unknown".

Table 4. Acres of land/ gopher tortoise habitat lost that is under the direct ownership of the signatory agency.

Report year	Acres lost	Cause	Permanent or Temporary
2018	0		

#### **GOPHER TORTOISE POPULATION MONITORING**

##### ARMY

No report received

##### NAVY

Table 5. Population survey data (if survey methodology was *not* Line Transect Distance Sampling, indicate what methodology was used)

Report year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)
2009	All Year (ongoing at any or all of the five installations)	All Navy Installations, either in whole or part.	5500	428 (estimated from subsample)	Found 31 new burrows	100% survey method.
2010	All Year (ongoing at any or all of the five installations)	All Navy Installations, either in whole or part.	8400	512 (based on survey results)	Found 77 new burrows, Unable to scope sub adult and juvenile burrows	100% survey method; subsample burrow scoping.
2011	All Year (ongoing at any or all of the five installations)	All Navy Installations, either in whole or part.	8400	512 (no new info this year)	Burrow cameras purchased	Based on 2010 survey
2012	All Year (ongoing at any or all of the five installations)	All Navy Installations, either in whole or part.	8400	480 (burrow cameras used)	Monitoring and marking of GT burrows	100% survey method; subsample burrow scoping.
2013	All Year (ongoing at any or all of the five installations)	All Navy Installations, either in whole or part.	17,963 (included non-habitat areas; urban areas.)	500 (estimated slight increase from 2012)	Slight increase; camera scoping is beginning to validate prior year estimates	100% survey of all GT habitats discovered.
2014	All Year (ongoing at any or all of the five installations)	All Navy Installations, either in whole or part.	5,532	500	Steady	100% monitoring of all GT habitats discovered.
2015	All Year (ongoing at any or all of	All Navy Installations,	2398	590	Steady; Survey at NOLF Holley was in preparation for	100% monitoring of all GT



	the six installations)	either in whole or part.			a solar farm project.	habitats discovered.
2016	All Year (ongoing at any or all of the six installations)	All Navy Installations, either in whole or part.	3500	500	Steady; slight increase at Mayport; decrease at NAS Pensacola likely due to survey intensity reduction in 2016.	100% monitoring of all GT habitats discovered; camera logs.
2017	All Year (ongoing at any or all of the six installations)	All Navy Installations, either in whole or part.	6654	721	Juvenile burrows on the increase. Increase of burrows at NAS Whiting Field. Decrease in adult burrows due to hurricanes at NAS Jacksonville and NS Mayport. Steady at other sites.	100% monitoring of all GT habitats discovered; 100% of burrows scoped at NAS Whiting Field.
2018	All Year (ongoing at any or all of the six installations)	All Navy installations, either in whole or part.	2485	750	Active burrows increased at NAS Jacksonville, NAS Mayport, and NAS Whiting Field, steady at other sites	Meandering transects, road survey, 100% monitoring of all GT habitat discovered.

AIRFORCETable 5. Population survey data (if survey methodology was *not* Line Transect Distance Sampling, indicate what methodology was used)

Report year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)	Viable, primary or secondary support population ?
2016	Survey conducted 2/11/2015 – 5/6/2015. Final data analyses completed in May 2016.	APAFR – scrub habitat	6,368 ac	1,525 adult tortoises (CV 15.92%); 1,847 subadult and adult tortoises (CV 13.22%)	N/A. Monitoring has not been going on long enough to detect trends. Juvenile tortoises ( $\leq 14$ cm CL) comprised only 2% of tortoises found in the survey. However, this is likely an underestimate because small juvenile-sized burrows have much lower detection probability.	LTDS	The population at APAFR is likely a viable population, especially when considering the large numbers of tortoises inhabiting adjacent non-scrub habitats (e.g., flatwoods, plantations).

2016	Monitoring conducted 6/24/2015 – 9/1/2016	APAFR – 6 subpopulations inhabiting a representative mix of scrub, flatwoods, and sandhill habitats	Total 670 ac (range 62-143 ac across the 6 sites)	Mean of 0.96 non-collapsed burrows per ac (range 0.67-1.34 burrows per ac); Mean proportion of non-collapsed burrows that were juvenile-sized (mean 0.08, range 0.01-0.20), subadult-sized (mean 0.15, range 0.06-0.38), and adult-sized (mean 0.77, range 0.48-0.90)	Two of the six sites were surveyed previously in 2011. At the Kissimmee 7 South scrub site, the abundance of non-collapsed burrows did not change between 2011 and 2015, but there were relatively more subadult-sized and relatively fewer juvenile-sized burrows in 2015. At the Smith 4 flatwoods site, the density of non-collapsed burrows declined by 33% and the burrow size distribution was even more skewed toward adult sizes.	Burrow surveys (width, activity status) along 5-m-spaced transects. Most non-collapsed burrows were also scoped, but in many cases occupancy could not be determined due to flooding (high water table).	The population at APAFR is likely a viable population, especially when considering the large numbers of tortoises inhabiting adjacent non-scrub habitats (e.g., flatwoods, plantations).
2016	October 2015	Eglin AFB (Duck Pond Lt)	41	5.60	Decrease	Area-constrained Total Transect	secondary
2016	October 2015	Eglin AFB (Duck Pond Paired #2)	41	0.00	Decrease	Area-constrained Total Transect	secondary
2016	May/June	Eglin AFB (Rogue Creek LT)	35	6.72	Decrease	Area-constrained Total Transect	secondary
2016	May/June	Eglin AFB (McQuage Branch LT)	15	6.16	Decrease	Area-constrained Total Transect	secondary

2016	November	Eglin AFB (East Bay LT)	26	23.52	n/a	Area-constrained Total Transect	secondary
2016	May/June	Eglin AFB B70C1 – Legacy Study	12	3.92	n/a	Area-constrained Total Transect	secondary
2016	May/June	Eglin AFB B70C2 – Legacy Study	12.1	5.60	n/a	Area-constrained Total Transect	secondary
2016	May/June	Eglin AFB B70E – Legacy Study	13.9	8.40	n/a	Area-constrained Total Transect	secondary
2016	May/June	Eglin AFB C64 – Legacy Study	16.5	3.36	n/a	Area-constrained Total Transect	secondary
2016	May/June	Eglin AFB C61A – Legacy Study	10.4	25.2	n/a	Area-constrained Total Transect	Primary
2016	May/June	Eglin AFB C72 – Legacy Study	10.6	8.40	n/a	Area-constrained Total Transect	secondary
2016	May/June	Eglin AFB C62N – Legacy Study	10.0	5.60	n/a	Area-constrained Total Transect	secondary
2016	May/June	Eglin AFB C62S – Legacy Study	10.4	9.52	n/a	Area-constrained Total Transect	secondary
2016	May/June	Eglin AFB Pine Log – Legacy Study	10.5	7.28	n/a	Area-constrained Total Transect	Primary
2016	May/June	Eglin AFB 201E – Legacy Study	9.9	9.52	n/a	Area-constrained Total Transect	Primary
2016	Mar – Oct	Moody AFB- Main Base Gopher Tortoise Colonies	50	30	Stable	Pedestrian survey. No scoping of burrows	Primary

2016	Summer 2016	Tyndall AFB, Florida	530	229 Active burrows	Increasing, juveniles	100% of known burrows were inspected	
2017	October 2016	Eglin AFB (Duck Pond Lt)	40.8	5.60	Decrease	Area-constrained Total Transect	secondary
2017	October 2016	Eglin AFB (Duck Pond Paired #2)	40.8	0.00	Decrease	Area-constrained Total Transect	secondary
2017	September 2017	Eglin AFB (Turtle Creek Reintroduction Site)	48.7	8.40	Decrease	Area-constrained Total Transect	secondary
2017	September 2017	Eglin AFB (Turtle Creek Reintroduction Site Paired #1)	48.7	0.00	n/a	Area-constrained Total Transect	secondary
2017	September 2017	Eglin AFB B75 – Legacy Study	25.7	12.9	n/a	Area-constrained Total Transect	secondary
2017	September 2017	Eglin AFB Bull Creek – Legacy Study	24.7	12.9	n/a	Area-constrained Total Transect	secondary
2017	September 2017	Eglin AFB Middle Creek – Legacy Study	34.6	5.6	n/a	Area-constrained Total Transect	secondary
2017	Mar – Sep 2017	Moody AFB Main Base Gopher Tortoise Colonies	50	30 tortoises	Stable to slight decrease	Pedestrian Survey. No scoping of burrows.	Primary
2017	Spring 2017	Tyndall AFB	3,648	202	Slightly Increasing, juveniles	Total Count and LTDS	
2018	October 2017	Eglin C-74	25	20	decrease	Area-constrained Total Transect	Secondary
2018	October 2017	Eglin C-52N	28	4	decrease	Area-constrained Total Transect	Secondary

2018	October 2017	Eglin B-71C	26	30	decrease	Area-constrained Total Transect	Secondary
2018	March 2018	Eglin Garnier Creek	25	1	decrease	Area-constrained Total Transect	Secondary
2018	September 2018	Eglin C-61A	153	88	increase	Area-constrained Total Transect	Secondary
2018	Year-round	MacDill AFB	157	11 tortoise; 40 burrows	N/A	Incidental; Grid	N/A
2018	Spring	Moody AFB	946	220	Stable	100% Pedestrian Survey	Primary
2018	Year-round	Tyndall AFB	3,750	214	Slight increase, juveniles in multiple areas	Total Count	N/A

MARINES

Table 5. Population survey data (if survey methodology was *not* Line Transect Distance Sampling, indicate what methodology was used)

No report received

Report year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)	Viable, primary or secondary support population?
2016	Year-round	MCLB Albany	1,200	3	Decrease	Direct Encounter	No
2017	Year-round	MCLB Albany	1,200	1	Decrease	Direct Encounter	No
2018							

USFSTable 5. Population survey data (if survey methodology was *not* Line Transect Distance Sampling, indicate what methodology was used)

Report year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)	Viable, primary or secondary support population?
2014	9/2014	Munson East	1,457ha/ 3,600acres	1.81 per ha or 2,638	First Year		
	9/2014	Munson West	6,688ha/ 16,527 acres	.24 per ha or 1,613	First Year		
2015							
2016							
2017							
2018	N/A	N/A	N/A	N/A	N/A	N/A	N/A

USFWSTable 5. Population survey data (if survey methodology was *not* Line Transect Distance Sampling, methodology was used)

Report year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)	Viable, primary or secondary support population?
2016	Several	CH	30	~55	Stable	100%	2 <sup>nd</sup> support
2016	Apr-Jun	DD	37	38	Increase	100%	2 <sup>nd</sup> support

2017	EK – Oct 2016	NWR	80	84 burrows	Stable	LTDS pilot	Support
2018			None				

ALABAMA DCNR

Table 5. Population survey data (if survey methodology was not Line Transect Distance Sampling, indicate what methodology was used)

Report year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)	Viable, primary or secondary support population?
2013	10/14	Geneva State Forest (AFC)	2172.8	589	Initial survey	LTDS	Support Popn
2014	Aug-Oct	Wehle Center (State Lands Division)	724	20	Evidence of juveniles and eggs at burrow.	Field Reconnaissance	Secondary Support popn
2015	4/15	Conecuh NF (Jim's Site)	1213.8	163	Initial survey	LTDS	Support Popn
2015	9/13	Conecuh NF (Nellie Pond)	826.7	337	Initial survey	LTDS	MVP
2014	7/14	Conecuh NF (Snake Release Pens)	985.9	205	Initial survey	LTDS	Support Popn
2014	9/14	Lakepoint State Park	74.7	--	Initial survey	Full transects not implemented. Only Pilot Survey	NA
2014	10/14	Solon Dixon Forestry Education Center (AU)	1479.0	201	Initial survey	LTDS	Support popn
2015	6/15	Perdido WMA (Forever Wild Land Trust)	3299.9	434	Initial survey	LTDS	Support popn



2015	8/15	Gulf State Park	173	<20	Initial survey	Full transects not implemented. Only Pilot Survey	Secondary Support popn
2016	3/16	Barbour WMA	369	<20	Initial survey	Full transects not implemented. Only Pilot Survey	Secondary Support popn
2016	7/16	Geneva WMA	2441.6	140	Initial survey	LTDS	Support popn
2016	11/17	Upper State SOA	268.5	<20	Initial survey	Full transects not implemented. Only Pilot Survey	Secondary Support popn
2017	11/17	Fred T Stimpson SOA	1213.8	214	Initial survey	LTDS	Support popn
2017	July – October 2017	Wehle Tract	~700 ac	20 tortoises	Juveniles observed	Complete trapping effort	Secondary support population
2018	July – October 2018	Wehle Tract	~700 ac	20 tortoises	Juveniles observed/nest discovered	Targeted trapping effort	Secondary support population

#### FLORIDA FWCC

Beginning in 2014, Florida adopted and has implemented the range-wide population survey protocol as outlined in the GT CCA, Line Transect Distance Sampling (LTDS). Nine gopher tortoise surveys were completed between October 1, 2017 and September 30, 2018 and included 23,997 acres (9,711 hectares) of suitable gopher tortoise habitat. Seven of the surveys were conducted by the Florida Natural Areas Inventory and two by FWC staff. Of the nine sites surveyed this FY, seven were considered viable and two were primary support populations. Density estimates are provided for sites surveyed prior to LTDS implementation in 2014.

Table 5. Population survey data (if survey methodology was *not* Line Transect Distance Sampling, indicate what methodology was used).

Report year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology	Viable, primary or secondary support population?
2009		n/a	n/a	n/a	n/a		
2010	FY 2009 - 2010	Apalachee Wildlife Management Area	400	1.16	n/a	Belt transect (burrow survey)	
	FY 2009 - 2010	Big Bend WMA (Spring Creek Unit)	350	0.31	n/a	Belt transect (burrow survey)	
	FY 2009 - 2010	Jennings State Forest WMA		400 (Total)	Increase from 2005	Belt transect (burrow survey)	
	January-10	Northwest Hackletrap (RS)	150	0.07	n/a	Belt transect (burrow survey)	
	January-10	The Woods (RS)	75.25	0.03	n/a	Belt transect (burrow survey)	
	June-10	Lake Louisa State Park (RS)	6.4	0.54	n/a	Belt transect (burrow survey)	
	August-10	Allen Brossard Conservancy (RS)	40	0.2	n/a	Belt transect (burrow survey)	
	July-10	Withlacoochee Bay Trail (Felburn Trailhead)	53	0.2	n/a	Belt transect (burrow survey)	
	December-09	PSC Gopher Ranch Eight Mile Still Road (RS)	55.7	0.2	n/a	Belt transect (burrow survey)	
	January-10	Chinquapin Farm (RS)	31.9	1.88	n/a	Belt transect (burrow survey)	
	February-10	Hatchineha Ranch Cons Bank (RS)	17.6	0.9	n/a	Belt transect (burrow survey)	

2011	May-11	Chassahowitzka WMA	1,636	0.24	n/a	Belt transect (burrow survey)	
	April-11	Guana River WMA	402	0.18	n/a	Belt transect (burrow survey)	
	July-11	Caravelle Ranch WMA	47	0.88	n/a	Belt transect (burrow survey)	
	June-11	Aucilla WMA	280	0.023	n/a	Belt transect (burrow survey)	
	December-10	Hickey Creek	80	1	n/a	Belt transect (burrow survey)	
	June-11	North Buck Lake Sanctuary	49.06	1.72	n/a	Belt transect (burrow survey)	
	January-11	Allen Broussard Conservancy (RS)	316.4	0.22	n/a	Belt transect (burrow survey)	
	February-11	Nokuse Plantation (Black Creek Unit) (RS)	494	0.12	n/a	Belt transect (burrow survey)	
	February-11	Heritage Ranch (Unit 1) (RS)	8.95	1.34	n/a	Belt transect (burrow survey)	
	February-11	Heritage Ranch (Unit 2) (RS)	42.28	0.85	n/a	Belt transect (burrow survey)	
	February-11	Heritage Ranch (Unit 3) (RS)	29.26	0.34	n/a	Belt transect (burrow survey)	
	May-11	Charlotte County (Tippecanoe Unit 4) (RS)	28.4	1.28	n/a	Belt transect (burrow survey)	
	September-11	Adams Ranch (RS)	273.1	0.57	n/a	Belt transect (burrow survey)	
	May-11	Russakis Ranch (Phase 1) (RS)	221.56	0.15	n/a	Belt transect (burrow survey)	
	June-11	Tiger Lake Wildlife Ranch (RS)	270.1	0.16	n/a	Belt transect (burrow survey)	

	August-11	Nokuse Plantation (Magnolia Creek Sandhill) (RS)	250	0	n/a	Belt transect (burrow survey)	
	October-10	Allapattah Flats Wildlife Management Area (RS)	16.36	0.24	n/a	Belt transect (burrow survey)	
2012	June-12	Aucilla WMA	346.56	0.01	n/a	Belt transect (burrow survey)	
	May-12	Blackwater WMA	3,000	0.04	n/a	Belt transect (burrow survey)	
	May-12	Econfina Creek WMA	203	0.08	n/a	Belt transect (burrow survey)	
	April-12	Jennings Stat Forest	5,820.3	0.36	n/a	Belt transect (burrow survey)	
	July-12	Point Washington WMA	387.9	0.01	n/a	Belt transect (burrow survey)	
	June-12	Pine Log WMA	410.97	0.03	n/a	Belt transect (burrow survey)	
	August-12	Beville Ranch Phase 2 (RS)	125.3	0.18	n/a	Belt transect (burrow survey)	
	January-12	Gator Hole preserve (RS)	20.85	0	n/a	Belt transect (burrow survey)	
	November-11	Isle of Pine Preserve (RS)	7.05	1.49	n/a	Belt transect (burrow survey)	
	April-12	Viera Wilderness Park Stage 1 (RS)	41.18	0.08	n/a	Belt transect (burrow survey)	
	June-12	Camp La-No-Che Wildlife Cons Area (RS)	92	0.01	n/a	Belt transect (burrow survey)	
	November-11	Bowman's Beach (RS)	62.89	0.52	n/a	Belt transect (burrow survey)	

	January-12	Venus Ranch (RS)	200	0.08	n/a	Belt transect (burrow survey)	
2013	FY 2012 - 2013	Ongoing Blackwater, Econfina, Pine Log and Point Washington WMAs				Belt transect (burrow survey)	
	November-12	Allen Broussard Conservancy Long-Term Protected Site	294.83	0.083	n/a	Belt transect (burrow survey)	
	November-12	Allen Broussard Conservancy Phase II	344.28	0.101	n/a	Belt transect (burrow survey)	
	November-12	Russakis Ranch Phase II	221.33	0.164	n/a	Belt transect (burrow survey)	
	November-12	West Grasshopper Tract Unit 1	212.9	0.436	n/a	Belt transect (burrow survey)	
	January-13	Russakis Investments Phase I	181.64	0.102	n/a	Belt transect (burrow survey)	
	September-13	Dunns Creek State Park Recipient Site	52	0.545	n/a	Belt transect (burrow survey)	
	September-13	Triple S Land Company Phase I	135.6	0.876	n/a	Belt transect (burrow survey)	
	September-13	Triple S Land Company Phase II	413.15	0.066	n/a	Belt transect (burrow survey)	
2014	August – October 2014	Bell Ridge WEA	721.94	1,197	Baseline	LTDS	Viable
	August – October 2014	Ft. White WEA	808.04	974	Baseline	LTDS	Viable
	August – October 2014	Goldhead Branch SP	1,880.96	843	Baseline	LTDS	Viable
	August – October 2014	Ichetucknee Springs SP	790.18	1,269	Baseline	LTDS	Viable

2015	April-15	Cayo Costa State Park	404.02	343	Baseline	LTDS	Viable
	January-15	Edward Ball Wakulla Springs State Park	1,111.73	73	Baseline	LTDS	Primary Support
	December-14	Goethe SF Levy County- Main tract	4,724.65	2,039	Baseline	LTDS	Viable
	March-15	Guana River WMA	941.96	219	Baseline	LTDS	Primary Support
	February-15	Hilochee WMA (non-Osprey unit)	1,291.12	176	Baseline	LTDS	Primary Support
	October-14	Joe Budd WMA	638.03	66	Baseline	LTDS	Primary Support
	March-15	Jonathan Dickinson State Park	2,794.02	870	Baseline	LTDS	Viable
	August-15	Lake Louisa State Park	1,853.53	1,626	Baseline	LTDS	Viable
	May-15	Lake Wales Ridge WEA Carter Creek	1766.80	243	Baseline	LTDS	Primary Support
	March-15	Lake Wales Ridge WEA Silver Lake	454.67	296	Baseline	LTDS	Viable
	October-14	Little Talbot Island State Park	402.29	754	Baseline	LTDS	Viable
	March-15	Moody Branch WEA	448.50	478	Baseline	LTDS	Viable
	November-14	O'Leno/River Rise State Park	1,147.06	1,011	Baseline	LTDS	Viable
	February-15	Perry Oldenburg WEA	333.10	213	Baseline	LTDS	Primary Support
	June-15	St. Sebastian River SP NE	2,817.00	977	Baseline	LTDS	Viable
	October-14	Watermelon Pond WEA	329.64	184	Baseline	LTDS	Primary Support

	July-15	Wingate Creek State Park	376.09	303	Baseline	LTDS	Viable
	February-15	Withlacoochee SF Citrus	44,229.32	7,179	Baseline	LTDS	Viable
	Sept 2014-Feb 2015	Apalachicola NF-Munson East	3,600.32	2,638	Baseline	LTDS	Viable
	Sept 2014-Feb 2015	Apalachicola NF-Munson West	14,030.62	1,207	Baseline	LTDS	Primary Support
	April-15	Ocala NF-Riverside Island	8,974.85	1,126	Baseline	LTDS	Primary Support
	April	Tall Timbers Research Station	558.46	42	Baseline	LTDS	Secondary Support
	April	Woodfield Springs Plantation	2,132.52	231	Baseline	LTDS	Primary Support
	May	Dixie Plantation	1,989.2	166	Baseline	LTDS	Primary Support
	June	Merrily Plantation Conservation Easement	574.00	34	Baseline	LTDS	Secondary Support
	July	Cherokee Plantation	647.00	19	Baseline	LTDS	Secondary Support
	July	El Destino Plantation	1,524.64	373	Baseline	LTDS	Primary Support
	August	Foshalee Plantation Conservation Easement	1,907.65	45	Baseline	LTDS	Secondary Support
	October	Horseshoe Plantation	3,422.41	469	Baseline	LTDS	Primary Support
2016	January-12	Bullfrog Creek WEA	457.49	378	Baseline	LTDS	Viable
	February-12	Blackwater River SF West Boundary Unit	6,989.91	284	Baseline	LTDS	Primary Support
	April-7	Withlacoochee SF Croom	12,761.51	8,221	Baseline	LTDS	Viable

	May	Half Moon WMA	2,396.60	820	Baseline	LTDS	Viable
	May	Big Bend WMA Spring Creek	721.55	208	Baseline	LTDS	Primary Support
	May	Big Bend WMA Tide Swamp	341.50	238	Baseline	LTDS	Primary Support
	June	Eglin AFB	6,543.00	36	Baseline	LTDS	Secondary Support
	September	Lafayette Forest WEA	760.59	388	Baseline	LTDS	Viable
	September	Suwannee Ridge WEA	1,135.94	831	Baseline	LTDS	Viable
2017	March- 14	Platt Branch WEA	762	967	Baseline	LTDS	Viable
	March-20	Julington-Durbin Preserve	542	273	Baseline	LTDS	Viable
	April	Twin Rivers SF-Ellaville Tract	2,570	1189	Baseline	LTDS	Viable
	April	Branan Field WEA	92	132	Baseline	LTDS	Secondary Support
	April	Honeymoon Island SP	154	217	Baseline	LTDS	Secondary Support
	April	Kissimmee Prairie Preserve SP	18,506	4778	Baseline	LTDS	Viable
	April	Highlands Hammock SP	2,988	1,658	Baseline	LTDS	Viable
	May	Tate's Hell SF	223	Unable to determine	Baseline	LTDS	Secondary Support
	May	Econfina Creek WMA- Carter Tract	948	96	Baseline	LTDS	Primary Support
	May	Jennings SF	7,075	3,828	Baseline	LTDS	Viable
	September	Apalachee WMA	2,147	434	Baseline	LTDS	Viable



2018	October	Ralph E. Simmons SF	939	1,408	Baseline	LTDS	Viable
	October	Torrey SP	2,032	216	Baseline	LTDS	Primary Support
	November	Twin Rivers SF-Blue Springs	2,036	2,498	Baseline	LTDS	Viable
	November	Chassahowitzka WMA	6,420	1,491	Baseline	LTDS	Viable
	April	Little Manatee River SP	1,141	272	Baseline	LTDS	Viable
	April	Rainbow Springs SP	591	479	Baseline	LTDS	Viable
	May	Withlacoochee West CA- Quail Farms	611	154	Baseline	LTDS	Primary Support
	May	Green Swamp West Unit WMA	8,080	2,204	Baseline	LTDS	Viable

GEORGIA DNR

Table 5. Population survey data (if survey methodology was *not* Line Transect Distance Sampling, indicate what methodology was used)

Report year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)	Viable, primary or secondary support population? *
2009		Various (12 sites)	7,925	1,933	n/a		3/7/2
2010	No surveys						
2011	No completed surveys						
2012		Various (19 sites)	20,930	7,405	n/a		5/13/1

2013		Various (16 sites)	15,424	3,468	n/a		1/14/1
2014		Various (14 sites)	11,335	3,808	Increase at FLWSMA; n/a others		7/7/0
2015		Various (12 sites)	16,157	4,275	Increase at Barrington; n/a others		7/13/4
2016	1/2016	Lower Satilla WMA	692	471	n/a		Viable
2016	1/2016-3/2016	Fort Perry/Flournoy /McLaurin	2,377	137	n/a		Primary support
2016	3/2016-5/2016	Altama WMA	764	182	n/a		Primary support
2016	5/2016-6/2016	Altamaha WMA (Cox Tract)	161	68	n/a		Primary support
2016	6/2016-7/2016	Alapaha River Ranch	1,068	513	n/a		Viable
2016	7/2016-8/2016	Flint River WMA	210	63	n/a		Primary support
2016	8/2016-9/2016	Bullard Creek WMA TCF additions	692	315	n/a		Viable
2017	9-10/2016	Oohopee Dunes	1,890	195	Increase		Primary support
2017	10-11/2016	Alligator Creek WMA	2,016	201	n/a		Primary support
2017	11/2016	General Coffee State Park	136	97	Increase		Primary support
2017	12/2016	TNC R.G. Daniels	141	74	Increase		Primary support
2017	12/2016	George L. Smith State Park	509	157	Increase		Primary support
2017	1-2/2017	Oohopee Dune WMA addition	2209	395	n/a		Viable

2017	2-3/2017	TCF Bulloch/Bryan	736	389	n/a		Viable
2017	3-4/2017	Southern Power Wayne	529	320	n/a		Viable
2017	5-7/2017	Alapaha River WMA	2946	2385	Increase		Viable
2017	7-8/2017	Hilliard Tract	1473	183	n/a		Primary support
2017	8-9/2017	Sandhills WMA addition	1764	270	n/a		Viable
2018	10/2017	Moody Forest WMA	850	168	Increase		Primary support
2018	10/2017	Plant Hatch	311	51	n/a		Primary support
2018	11- 12/2017	Ohoopee Dunes WMA additions	618	126	Increase		Primary support
2018	12/2017- 1/2018	Georgia Power Rouse Tract	353	21	n/a		Secondary support
2018	1-3/2018	Westervelt's Tiger Creek Tract	1882	340	n/a		Viable
2018	3-4/2018	Plant Vogtle	301	27	n/a		Secondary support
2018	4-6/2018	Yuchi WMA	4297	104	Increase		Primary support
2018	6-8/2018	Doerun WMA	346	258	Increase		Viable
2018	8-9/2018	Thomas Farms	1001	257	n/a		Viable

\*For years with multiple survey sites presented in one row, #/#/# refers to the number of populations defined as viable/primary support/secondary support. Additionally, the ranking of viability for these properties does not include tortoise occurrences on adjacent properties, some of which have no barriers between, and collectively would bring the levels of viability for the full population above that which is indicated.

SOUTH CAROLINA DNRTable 5. Population survey data (if survey methodology was *not* Line Transect Distance Sampling, indicate what methodology was used)

Report year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)	Viable, primary or secondary support population?
2015	11/2015	TSRHP	~400	232 (169-320)	Baseline survey all age classes present	LTDS	Viable
2016	Winter/spring	Buckfield Slater	~1700 ~474	381 (263-553) 141 (92-218)	Baseline surveys all age classes present	LTDS LTDS	Viable PSP
2017	Winter/spring 2017	Green Swamp SCPSA	~470 ~739	104 (79-138) 88(64-120)	Baseline – all sizes present Baseline – only adults	LTDS LTDS	PSP PSP
2018	Summer 2018	Aiken GTHP	~1600	107	All sizes present	Live Trapping	PSP

GA DOTTable 5. Population survey data (if survey methodology was *not* Line Transect Distance Sampling, indicate what methodology was used)

Report year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)
2013	*	GDOT Proposed Rights-of-Way	*	*	*	Presence/Absence
2014	*	GDOT Proposed Rights-of-Way	*	*	*	Presence/Absence
2015	*	GDOT Proposed Rights-of-Way	*	*	*	Presence/Absence

2016	*	GDOT Proposed Rights-of-Way	*	*	*	Presence/Absence
2017	*	GDOT Proposed Rights-of-Way	*	*	*	Presence/Absence
2018	*	GDOT Proposed Rights-of-Way	*	*	*	Presence/Absence

*\* GDOT conducts numerous habitat and presence/absence surveys for gopher tortoise within proposed transportation project rights-of-way annually.*

#### POARCH BAND OF CREEK INDIANS

None reported.

#### AMERICAN FOREST FOUNDATION (AFF)

No report received.

#### LONGLEAF ALLIANCE

Table 5. Population survey data (if survey methodology was *not* Line Transect Distance Sampling, indicate what methodology was used)

Report year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)	Viable, primary or secondary support population?
2018	Fall	Conecuh NF	600+	63		100% cruise	

#### JONES CENTER

Table 5. Population survey data (if survey methodology was *not* Line Transect Distance Sampling, indicate what methodology was used)

Report year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)	Viable, primary or secondary support population?
2011	Fall	Ichauway	16,976 ac (6870 ha)	4880 ( $\pm 708$ ; 14.5% CV)			Viable

2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2015	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2016	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2015	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2016	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2017	Fall	Ichauway	16,976 ac (6870 ha)	5319±722; 13.6% CV	Stable or increasing	LTDS	Viable
2018	N/A	N/A	N/A	N/A	N/A	N/A	N/A

ALABAMA FORESTRY COMMISSION

Table 5. Population survey data (if survey methodology was *not* Line Transect Distance Sampling, indicate what methodology was used)

Report year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)	Viable, primary or secondary support population?
2014	April-October	Geneva State Forest	5,430	589 (0.27/ha)		LTDS	
2015	NA	NA	NA	NA	NA	NA	NA
2016	NA	NA	NA	NA	NA	NA	NA
2017	NA	NA	NA	NA	NA	NA	NA

2018	NA	NA	NA	NA	NA	NA	NA
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NATIONAL PARK SERVICE

Not reported.

ALABAMA POWER COMPANY

Table 5. Population survey data (if survey methodology was *not* Line Transect Distance Sampling, indicate what methodology was used)

Report year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)	Viable, primary or secondary support population?
2018	March/April	RMS	238	20	NA/first survey		

GEORGIA POWER COMPANY

Table 5. Population survey data (if survey methodology was *not* Line Transect Distance Sampling, indicate what methodology was used)

Report year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)	Viable, primary or secondary support population?
2018	Oct. 2017	Plant Hatch	311	51	Juveniles seen		Secondary
	May 2018	Plant Vogtle	654	49	Juveniles seen		Secondary

## RELEVANT ACTIVITIES TO LISTING FACTOR B (OVERUTILIZATION FOR COMMERCIAL, RECREATIONAL, SCIENTIFIC, OR EDUCATIONAL PURPOSES)

ARMY

No report received.

NAVY

- a) Education and outreach specifically targeting any collection activities that may incidentally or intentionally have negative impacts on either tortoises or their burrows.

- i) Publications [signage, brochures];

NAS Jacksonville purchased signs to install as burrows are located in the watchable wildlife area with information on the burrows, species status, and protection; signs were large enough that mowers will no longer run over burrow aprons.

- ii) Workshops and events [date, location, audience, organizer];

NAS Jacksonville Environmental continued monthly INDOC briefings to over 200 military personnel for GT identification vs aquatic turtle and GT burrow identification vs armadillo.

- iii) Public service broadcasts/announcements; N/A

- iv) Electronic media [website, Listserv, other internet-based outreach] N/A

AIR FORCE

- a) Education and outreach specifically targeting any collection activities that may incidentally or intentionally have negative impacts on either tortoises or their burrows.

- i) Publications [signage, brochures];

Avon Park AFR: The outdoor recreation department provides information on state and federally-listed species occurring at APAFR for recreationist awareness.

Tyndall AFB: Signs posted on roadways near known gopher tortoises population clusters. Brochures are always available at the Natural Resources Office and distributed to Balfour Beatty Housing Office for Base residents. Brochures are also handed out at various Base events

- ii) Workshops and events [date, location, audience, organizer];

Tyndall AFB: Cops Night Out, Tyndall AFB, May 2018; Tyndall Spouses Club Social, Tyndall AFB, April 2018.

- iii) Public service broadcasts/announcements; or

- iv) Electronic media [website, Listserv, other internet-based outreach]

MARINES

- a) Education and outreach specifically targeting any collection activities that may incidentally or intentionally have negative impacts on either tortoises or their burrows.

No report received

- i) Publications [signage, brochures];



- ii) Workshops and events [date, location, audience, organizer];
- iii) Public service broadcasts/announcements; or
- iv) Electronic media [website, Listserv, other internet-based outreach]

#### USFS

- a) Education and outreach specifically targeting any collection activities that may incidentally or intentionally have negative impacts on either tortoises or their burrows.

None

#### USFWS

- a) Education and outreach specifically targeting any collection activities that may incidentally or intentionally have negative impacts on either tortoises or their burrows.

- i) Publications [signage, brochures];
- ii) Workshops and events [date, location, audience, organizer];  
  
**Lower Suwannee NWR:** Rx Fire Talk, Jan 2018, Suwannee Town Hall, open to Public, Refuge FMO; Refuge Open House – Gopher talk and equipment demo, Feb 2018, On Refuge, Open to Public, USFWS Refuge Manager; Rx Fire Talks (2), March 2018, July 2018 UF Campus, open to Students, Refuge FMO
- iii) Public service broadcasts/announcements; or
- iv) Electronic media [website, Listserv, other internet-based outreach]

#### ALABAMA DCNR

- a) Education and outreach specifically targeting any collection activities that may incidentally or intentionally have negative impacts on either tortoises or their burrows.
  - i) publications [signage, brochures];
  - ii) Workshops and events [date, location, audience, organizer];
  - iii) Public service broadcasts/announcements; or
  - iv) Electronic media [website, Listserv, other internet-based outreach] Facebook posts regarding gopher tortoise monitoring on Wehle. Facebook posts informing public about protected species regulation and it is illegal to be in possession of a gopher tortoise at any time without a permit from DWFF occurred throughout the FY.

FLORIDA FWCC

- a) Education and outreach specifically targeting any collection activities that may incidentally or intentionally have negative impacts on either tortoises or their burrows.

- i) Publications [signage, brochures];

Over 22,000 (22,388) outreach materials were distributed during this reporting period. Approximately 3,429 copies of the pamphlet A Guide to Living with Gopher Tortoises were distributed to local governments, schools, nature centers, and Florida residents. The informational poster, Got Gophers, Get Permits! has been distributed 20 times to local governments. The Safe Roads for People and Gopher Tortoises placard was distributed 61 times during the reporting period, and is still available at Florida Visitor Centers, and state and local parks. All FWC gopher tortoise publications are available at each of FWC's Regional Offices or for free download at <http://MyFWC.com/GopherTortoise>.

The Gopher Tortoise Conservation Program also created several new outreach items during FY18. A "Keep Gopher Tortoises Wild" and a "Slow Down for Gopher Tortoises" decal was created and distributed to FWC Regional Offices, at outreach events, presentations, and to the general public. Temporary tattoos were also created to celebrate April 10 as Gopher Tortoise Day in Florida and have been distributed to various audiences throughout the state.

- ii) Workshops and events [date, location, audience, organizer];

Utilizing staff and student interns, the Gopher Tortoise Conservation Program hosted and/or participated in 49 outreach events in FY18, including: 5 local government workshops; 1 law enforcement training event, and; 43 other outreach events, including the 20<sup>th</sup> annual Red Hills Horse Trials, the 21<sup>st</sup> annual St. Marks Stone Crab Festival, the Polk County Water, Wings, and Wild Things event, the Palm Beach County Natural Areas Festival, the World Turtle Day event at Marineland, four Gopher Tortoise Day events, seven elementary school events, and multiple diverse presentations.

FWC gopher tortoise presentations and/or education booths were present at a variety of events, including:

- Outdoor Experience at Beau Turner Youth Conservation Center
- Wild Sarasota Presentation
- Crawfordville Arbor Day Festival
- Orlando Wetlands Festival
- Tallahassee Science Festival
- "Critter Days" at Jake Gaither Community Center
- Chinsegut Conservation Center Presentation
- Red Hills Fire Festival at Tall Timbers Research Station
- Hernando Audubon Society Presentation
- Topsail Hill State Park Presentation
- North Port Friends of Wildlife Presentation
- UF/IFAS Master Naturalist Presentation
- Jefferson County 4-H Camp

Additionally, Gopher Tortoise Conservation Program staff attended four Gopher Tortoise Day proclamation signings in various cities and counties throughout the state. Through an ongoing effort to encourage awareness and appreciation for gopher tortoises, the FWC promoted the adoption of resolutions proclaiming April 10 as Gopher Tortoise Day by local governments, non-profits, nature centers, and other entities. In FY18, 21 municipalities, 2 counties, a zoo, and the Governor of Florida declared April 10 as Gopher Tortoise Day. Gopher Tortoise Conservation Program staff attended proclamation signings in the cities of North Port and Gainesville, as well as Alachua and Brevard counties. Staff also participated in four Gopher Tortoise Day outreach events at the Trout Lake Nature Center in Eustis, Forever Florida in Osceola County, the Circle B Bar Reserve in Lakeland, and The Tallahassee Museum.

iii) Public service broadcasts/announcements;

N/A

iv) Electronic media [website, Listserv, other internet-based outreach]

The FWC created several social media (Facebook, Twitter, Instagram, Snapchat) posts relating to gopher tortoise conservation, including topics such as: 5 tips to help tortoises and turtles cross the road; declaring April 10<sup>th</sup> as Gopher Tortoise Day in Florida; a reward offer for a law enforcement case in which a gopher tortoise was found painted red, with concrete stuck to its face, limbs, and carapace; a law enforcement update indicating a man was charged with illegal dumping and harassment of a gopher tortoise for dumping paint and concrete in its burrow; a law enforcement rescue of a gopher tortoise trapped under a fence; gopher tortoise forage plants and the importance of not feeding wild tortoises; a search for tips on two law enforcement cases, one in which a vehicle was recorded running over a gopher tortoise in a parking lot, and another in which a tortoise was shot, and; a Facebook Live event for Gopher Tortoise Day in which gopher tortoise burrows were scoped at Munson Hills in Apalachicola National Forest.

The FWC published press releases and a weekly agency report to announce regional workshops for local governments to help conserve gopher tortoises in Florida and to encourage Floridians to celebrate Gopher Tortoise Day on April 10.

The FWC continues to use the GovDelivery Listserv to send digital communications to subscribers who wish to receive gopher tortoise information relating to local governments, volunteer programs, stakeholders, and news/general information.

GEORGIA DNR

a) Education and outreach specifically targeting any collection activities that may incidentally or intentionally have negative impacts on either tortoises or their burrows.

i) publications [signage, brochures];

None

ii) Workshops and events [date, location, audience, organizer];

None

- iii) Public service broadcasts/announcements; or

None

- iv) Electronic media [website, Listserv, other internet-based outreach]

None

#### SOUTH CAROLINA DNR

- a) Education and outreach specifically targeting any collection activities that may incidentally or intentionally have negative impacts on either tortoises or their burrows.

- i) Publications [signage, brochures]; None to report.

- ii) Workshops and events [date, location, audience, organizer];

- iii) Public service broadcasts/announcements; None to report.

- iv) Electronic media [website, Listserv, other internet-based outreach]

-Several Facebook posts and video on SCDNR page about restocking efforts and telemetry at AGTHP.

-[http://www.dnr.sc.gov/news/2017/sept/sept29\\_tortoise.html](http://www.dnr.sc.gov/news/2017/sept/sept29_tortoise.html) "gopher tortoises released for study"

-<http://scnaturalresourcesblog.com/home/2017/6/5/home-for-wayward-tortoises->

#### GEORGIA DOT

None reported

#### POARCH BAND OF CREEK INDIANS

None reported.

#### AMERICAN FOREST FOUNDATION

No report received.

#### LONGLEAF ALLIANCE

- a) Education and outreach specifically targeting any collection activities that may incidentally or intentionally have negative impacts on either tortoises or their burrows.

- i) publications [signage, brochures]; As part of our outreach effort, 18,000 Burner Bob coloring books were produced which feature a story on the Gopher Tortoise.

- ii) Workshops and events [date, location, audience, organizer];

- iii) Public service broadcasts/announcements; or

iv) Electronic media [website, Listserv, other internet-based outreach]

In 2018, LLA reached 1,475 people on 3 Gopher Tortoise specific posts on Instagram and 3,092 on 4 gopher tortoise posts on Facebook. LLA created an Adobe Spark story on the LLA and SREL's head-starting program that reached 7,091 people.

JONES CENTER

- a) Education and outreach specifically targeting any collection activities that may incidentally or intentionally have negative impacts on either tortoises or their burrows.

N/A

ALABAMA FORESTRY COMMISSION

- a) Education and outreach specifically targeting any collection activities that may incidentally or intentionally have negative impacts on either tortoises or their burrows.

N/A

NATIONAL PARK SERVICE

No report received.

ALABAMA POWER COMPANY

- a) Education and outreach specifically targeting any collection activities that may incidentally or intentionally have negative impacts on either tortoises or their burrows.

i) publications [signage, brochures];

The section of this report is not applicable.

ii) Workshops and events [date, location, audience, organizer];

Alabama Power Environmental Compliance Department have discussed BMPs with construction crews and Power Delivery Department when working in the Gopher Tortoise habitat range.

iii) Public service broadcasts/announcements; or

The section of this report is not applicable.

iv) Electronic media [website, Listserv, other internet-based outreach]

The section of this report is not applicable.

GEORGIA POWER COMPANY

- a) Education and outreach specifically targeting any collection activities that may incidentally or intentionally have negative impacts on either tortoises or their burrows.

i. Publications [signage, brochures];

- ii. Workshops and events [date, location, audience, organizer];
- iii. Public service broadcasts/announcements; or
- iv. Electronic media [website, Listserv, other internet-based outreach]

## **RELEVANT ACTIVITIES TO LISTING FACTOR C (DISEASE OR PREDATION)**

### ARMY

No report received.

### NAVY

- a) Disease and die-offs (date, property/location, cause if known, number of deaths)

A juvenile tortoise was found dead in a culvert adjacent to the perimeter road on the north side of SUBASE. Because of advanced decomposition, a cause of death could not be determined.

- b) Disease screening efforts; N/A

- c) Predator control:

Coyote & hog direct lethal control, and other predator removals / relocations continued in GT habitats resulting in 4 coyotes from OLF Whitehouse. Protection of gopher tortoise and associated habitat was provided by removing 12 feral hogs, 6 raccoons, 3 coyotes, and 20 armadillos at NSB King's Bay.

### AIR FORCE

- a) Disease and die-offs (date, property/location, cause if known, number of deaths)

Eglin AFB: 15 carapaces found with evidence of predation in 3 translocation sites. Multiple juvenile and hatchling burrows dug up coyotes/canines. Camera trapping efforts demonstrated adult tortoise predation by coyote.

- b) Disease screening efforts

Avon Park AFR: Accomplished cursory health screening for URTD for all tortoises encountered.

Eglin AFB: All relocated tortoises were given cursory health screening for URTD.

Moody AFB: Continued URTD screening in gopher tortoise colonies in cooperation with Valdosta State University.

- c) Predator control

Avon Park AFR: Removed 307 feral hogs, 3 coyotes, and 2 raccoons.

Eglin AFB: 251 feral hogs and 30 coyotes were removed.

Tyndall AFB: Removed 6 coyotes, 3 fox, 26 raccoons, and 13 armadillo.

45<sup>th</sup> SW: Removed 54 raccoons, 17 feral hogs, and 10 coyotes.

### MARINES

No report received.

### USFS

None.

### USFWS

- a) Disease and die-offs (date, property/location, cause if known, number of deaths)
- b) Disease screening efforts
- c) Predator control

EK: Any raccoons which make it to Egmont Key are removed.

SV: Nonnative predator and overabundant mesopredator control provided by public hunting, an approved animal control plan, and a conservation partnership with USDA Wildlife Services. Four armadillos, 22 raccoons, and 75 feral hogs were removed by hunters.

### ALABAMA DCNR

- a) Disease and die-offs (date, property/location, cause if known, number of deaths) –

Observed first incidence of shell disease on plastrons of 2-captured adults on Wehle Tract (Sept. 2018). No histological samples were taken, and it is currently unknown what the causative agents are (i.e., fungal or keratinolytic bacteria). No deaths known presently.

- b) Disease screening efforts – None other than when waif tortoises were received or animals were relocated to the Geneva State Forest enclosure.
- c) Predator control
  - Perdido River WMA – None
  - Barbour WMA – 55 feral hogs were removed from this property during the reporting period.
  - Fred T. Stimpson Special Opportunity Area – 60 feral hogs were removed from this property during the reporting period.
  - Upper State Special Opportunity Area – 100 feral hogs were removed from this property during the reporting period.
  - Geneva WMA – 100 feral hogs were removed from this property during the reporting period.

FLORIDA FWCC

- a) Disease and die-offs (date, property/location, cause if known, number of deaths)

Since December 2014, the Gopher Tortoise Conservation Program has been collecting gopher tortoise mortality data submitted to the FWC via an online web form (<https://public.myfwc.com/HSC/GopherTortoise/GTMortality.aspx>). From the web form's inception to the end of the reporting period (September 30, 2018), 470 gopher tortoises were reported as sick, injured, or dead. Vehicles were the most commonly reported cause of injury and/or mortality with 192 tortoises reported hit on roads. For the reporting period of this fiscal year (October 1, 2017 through September 30, 2018), 150 gopher tortoises were reported as sick, injured, or dead. Vehicles were the most commonly documented cause of injury or mortality with 66 gopher tortoises reported hit on roads.

- b) Disease screening efforts

None this period.

- c) Predator control

None this period.

GEORGIA DNR

- a) Disease and die-offs (date, property/location, cause if known, number of deaths)

None known

- b) Disease screening efforts

None

- c) Predator control

None

SOUTH CAROLINA DNR

- a) Disease and die-offs (date, property/location, cause if known, number of deaths)

We are aware of multiple deaths of hatchling, yearling, and 2 year old tortoises at AGTHP as part of our survivorship study. At least one was due to a domestic dog attack. As a result of Rebecca McKee's trapping at the AGTHP, we have documented 8 tortoises (5 adults and 3 subadults) that died. All of these tortoises were waifs from various locals and all were contained in a pen on the property that is still standing to limit contamination.

- b) Disease screening efforts

All waif tortoises received for release at AGTHP are given a physical assessment before release. Blood samples are banked



Rebecca McKee, UGA Masters Student is taking oral and cloacal swabs of all tortoises captured at AGTHP as part of the long-term site fidelity study with SREL.

c) Predator control

AGTHP continues to experience occasional domestic dog activity including the excavation of some burrows. An effort was made to all SCDNR law enforcement officers to enforce the county dogs at large ordinance.

GEORGIA DOT

None reported.

POARCH BAND OF CREEK INDIANS

None reported.

AMERICAN FOREST FOUNDATION

No report received.

LONGLEAF ALLIANCE

None Reported

JONES CENTER

a) Disease and die-offs (date, property/location, cause if known, number of deaths)

N/A

b) Disease screening efforts

N/A

c) Predator control:

Mesomammalian predators (raccoon, opossum, skunk, fox, bobcat, and coyote) are excluded from 4 large-scale (90 ac) study plots to monitor effects on recruitment of gopher tortoises.

ALABAMA FORESTRY COMMISSION

a) Disease and die-offs (date, property/location, cause if known, number of deaths)

N/A

b) Disease screening efforts

N/A

c) Predator control

N/A

NATIONAL PARK SERVICE

No report received.

ALABAMA POWER COMPANY

None reported.

GEORGIA POWER COMPANY

- a) Disease and die-offs (date, property/location, cause if known, number of deaths)

N/A

- b) Disease screening efforts

N/A

- c) Predator control

Mesomammal predators were removed from tortoise habitat at Vogtle in concert with quail management efforts.

**RELEVANT ACTIVITIES TO LISTING FACTOR D (INADEQUACY OF EXISTING REGULATORY MECHANISMS)**ARMY

No report received.

NAVY

- a) Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat) None

i) State laws, rules and regulations

ii) Agency policies/directives/compliance documents

iii) Permitted takes (property/location, number of takes permitted)

AIR FORCE

- a) Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat)

i) State laws, rules and regulations

ii) Agency policies/directives/compliance documents

Eglin AFB: 1) Eglin continued partnership with Florida Fish and Wildlife Conservation Commission (FWC) and continued translocation activities for tortoises permitted for take on private lands under the incidental take permit system (ITP). To date, 1,283 ITP tortoises have been translocated to Eglin AFB. 2) Per US Fish and Wildlife Service (USFWS) conference assessment and the 2017 Eglin AFB Integrated Natural Resources Management Plan (INRMP), the USFWS has established an installation specific prelisting recovery goal of 18 Minimum Viable Populations (MVPs) of gopher tortoises (around 6,000 adult tortoises), for Eglin AFB owned properties (excluding test areas, airfields, and cantonment areas). Eglin AFB will utilize tortoises from various source populations to meet the recovery goal of 18 MVPs, including FWC ITP tortoises, displaced tortoises from mission and construction activity on Eglin AFB and other DoD lands. MVPs are located in suitable, fire maintained longleaf pine habitats. Relocation enclosures are sited with guidance from Eglin AFB leadership and co-located within existing endangered species habitat so as to minimize potential for constraints on military missions.

- iii) Permitted takes (property/location, number of takes permitted)

#### MARINES

- a) Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat). No report received
  - i) State laws, rules and regulations
  - ii) Agency policies/directives/compliance documents
  - iii) Permitted takes (property/location, number of takes permitted)

#### USFS

- a) Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat)  
  
None

#### USFWS

- a) Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat)  
  
None

#### ALABAMA DCNR

- a) Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat)
  - i) State laws, rules and regulations  
  
None

- ii) Agency policies/directives/compliance documents

None

- iii) Permitted takes (property/location, number of takes permitted)

None

#### FLORIDA FWCC

- a) Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat)

- i) State laws, rules and regulations

None

- ii) Agency policies/directives/compliance documents

None

- iii) Permitted takes (property/location, number of takes permitted)

None

#### GEORGIA DNR

- a) Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat)

- i) State laws, rules and regulation

None

- ii) Agency policies/directives/compliance documents

None

- iii) Permitted takes (property/location, number of takes permitted)

None other than translocations listed in Table 6

#### SOUTH CAROLINA DNR

- a) Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat)

- i) State laws, rules and regulations

Listed under SCDNR state endangered list (not new)

- ii) Agency policies/directives/compliance documents

SCDNR has taken the position that site development resulting in the destruction of a burrow would constitute a take, and consequently a violation of the states endangered species protection regulation.

- iii) Permitted takes (property/location, number of takes permitted)

GEORGIA DOT

None reported.

POARCH BAND OF CREEK INDIANS

None reported.

AMERICAN FOREST FOUNDATION

No report received.

LONGLEAF ALLIANCE

- a) Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat)

None reported.

JONES CENTER

- a) Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat)

N/A

ALABAMA FORESTRY COMMISSION

- a) Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat)

- i) State laws, rules and regulations

NA

- ii) Agency policies/directives/compliance documents –

Existing Policy – The AFC will take appropriate measures to protect the interest of TES whenever they are known to occur within a project area. AFC personnel will be aware of the TES known to occur within their work unit and will consult the AFC Threatened and Endangered Species Manual regarding the potential effect of cultural treatments on TES. If a TES is encountered during the course of an AFC activity, personnel should contact their Regional Coordinator and the AFC Forest Health Coordinator for consultation concerning appropriate action. Management recommendations made in areas where TES are known to occur will be made in a manner that provides either benefits or no negative effects on the TES in question.

AFC began inserting a clause in logging contracts that requires heavy logging equipment to stay at least 15 feet away from all known burrow entrances at Geneva State Forest. We began “flagging” burrows prior to the onset of any new logging activity so crews would be aware of the known burrows. Burrow locations are marked and entered into a database for future reference.

iii) Permitted takes (property/location, number of takes permitted)

N/A

NATIONAL PARK SERVICE

No report received.

ALABAMA POWER COMPANY

None reported.

GEORGIA POWER COMPANY

None reported.

**RELEVANT ACTIVITIES TO LISTING FACTOR E (OTHER NATURAL OR MANMADE FACTORS AFFECTING THE SPECIES CONTINUED EXISTENCE)**

ARMY

No report received.

NAVY

- a) Describe type(s) of projects or actions that prompted the permanent translocation or temporary relocation of gopher tortoises (in narrative form).

There was 1 translocation conducted on Navy lands (NAS Pensacola) to protect GT's from harm in airfield areas.

Table 6. Translocation

Report year	Total number of tortoises permanently translocated	Number of GTs to protected lands	Number of GTs to unprotected lands	Number of tortoises temporarily relocated	Were GTs released into soft enclosures and held for at least 6 months?
2009	0	0	0	0	0
2010	1	1	0	0	No

2011	3	3	0	0	No
2012	0	0	0	0	0
2013	0	0	0	0	0
2014	2	2	0	0	No
2015	47	47	0	0	Yes (ongoing at NOLF Holley)
2016	72	72	0	0	No, except for NAS Whiting Field (NOLF Holley).
2017	3	3	0	0	No
2018	1	1	0	0	Yes (Soft Enclosure NASP)

#### AIR FORCE

- a) Describe type(s) of projects or actions that prompted the permanent translocation or temporary relocation of gopher tortoises (in narrative form)

Eglin AFB: 1) Within Eglin AFB relocations: 48 tortoises were permanently relocated from active airfields. 6 tortoises were permanently relocated from construction sites. 48 tortoises were permanently relocated from isolated non-viable populations of less than 250 adults in unmanaged habitats. All tortoises were relocated to sites with enclosures and have been or will be held at least 6 months. 2) From off-site locations to Eglin AFB: 702 Incidental Take Permit (ITP) tortoises were translocated from privately owned properties in Florida to Eglin AFB. All tortoises were relocated to sites with enclosures and are held at least 6 months. ITP tortoises have been translocated to three sites on Eglin AFB. ITP tortoises are permitted for take by Florida Fish and Wildlife Conservation Commission (FWC) under an older permitting system, but still honored by the state. One site containing a 107 acre enclosure began receiving tortoises in October 2016 and reached full occupancy in September 2017. A second 80 acre enclosure began receiving tortoises in September 2017. A third site began receiving tortoise in May 2018.

MacDill AFB: 1) Gopher tortoise continue to utilize the mowed airfield for foraging and burrow construction. The MacDill AFB Bird Aircraft Strike Hazard (BASH) team routinely temporarily translocate gopher tortoise from the airfield to the closest suitable habitat directly adjacent to the airfield. 8 gopher tortoise were temporarily relocated on base due to potential impacts to military operations and construction activities. 2) Construction of the Army helicopter facilities

and grenade/skeet range permanently removed 59.55 acres of potential gopher tortoise habitat. 3 gopher tortoise burrows were located during pre-construction surveys (2 active, 1 inactive); 1 gopher tortoise was permanently translocated and 1 gopher tortoise was temporarily translocated to suitable habitat on installation.

45<sup>th</sup> SW: One tortoise found roaming through an active construction site, three tortoises removed from dirt pile that was being moved, one tortoise found in construction footprint of stormwater retention pond for a newly paved road, and one tortoise found in air curtain incinerator trenching area were permanently translocated to safer/appropriate locations on Cape Canaveral AFS property. One previously injured (run over by backhoe) tortoise was returned to CCAFS and permanently translocated to a safer location.

Table 6. Translocation

Report year	Total number of tortoises permanently translocated	Number of GTs to protected lands	Number of GTs to unprotected lands	Number of tortoises temporarily relocated	Were GTs released into soft enclosures and held for at least 6 months?
2010	52	0	52	0	NO
2011	53	0	53	0	NO
2012	16	0	16	0	NO
2013	97	0	97	0	NO
2014	18	0	18	0	NO
2015	60	0	60	0	24 NO, 36 YES
2016	36	0	105	69	36 YES, 69 NO
2017	666	0	666	0	40 NO, 626 YES
2018	818	0	827	9	17 NO, 810 YES



MARINES

No report received.

USFS

- a) Describe type(s) of projects or actions that prompted the permanent translocation or temporary relocation of gopher tortoises (in narrative form)

The study mentioned in section VIII below resulted in 539 gopher tortoises being translocated to the Apalachicola National Forest (ANF) in 2018.

Table 6. Translocation

Report year	Total number of tortoises permanently translocated	Number of GTs to protected lands	Number of GTs to unprotected lands	Number of tortoises temporarily relocated	Were GTs released into soft enclosures and held for at least 6 months?
2016	20*	20*			YES
2017	905*	905*			Yes
2018	539*	539*			

\*ANF was the recipient site.

USFWS

- a) Describe type(s) of projects or actions that prompted the permanent translocation or temporary relocation of gopher tortoises (in narrative form)

**OK** – The refuge has an ongoing road widening project that continues to be in the pre-construction phase. Gopher tortoises frequent the edge of the road and some have established burrows in the construction zone. In FY2017, four gopher tortoises were relocated from this area into neighboring habitat. After ensuring the burrow was empty, the burrows were closed and monitored for new activity. One tortoise was relocated in FY2018 with others continuing to occupy this area. Relocated these tortoises will continue as construction nears.

Table 6. Translocation

Report year	Total number of tortoises permanently translocated	Number of GTs to protected lands	Number of GTs to unprotected lands	Number of tortoises temporarily relocated	Were GTs released into soft enclosures and held for at least 6 months?
2017	SM – 1	1	N/a	N/a OK – 4	No, per FL FWCC
2018	OK - 2	OK - 2			

ALABAMA DCNR

- a) Describe type(s) of projects or actions that prompted the permanent translocation or temporary relocation of gopher tortoises (in narrative form)

During this FY three healthy waif tortoises were received from Jefferson, Russell, and Autauga counties. Animals were picked up by county residents who found the tortoises in their neighborhoods and were concerned about the animal's wellbeing. Residents took the tortoise to their local vet clinic. Veterinarian staff contacted DWFF as they realized the animals were found outside the species range and it was illegal to be in possession of them. DWFF collected animals and delivered them to enclosure site at Geneva SF. This enclosure was funded by a grant obtained by USFS and in partnership with the USFS-Conecuh NF, Alabama Forestry Commission and DWFF so that a temporary waif site would be available for waif animals, when needed, throughout the year.

Three additional healthy gopher tortoises we confiscated from a Baldwin County resident where they were held in captivity. Two of these animals were released into the Geneva SF enclosure and 1 animal was given to the Alabama Wildlife Federation to use as an education animal due to it only having 3 legs.

One gopher tortoise was relocated from Dale County High School due to children harassing it, dog attacks, and lack of habitat other than the football field. This healthy gopher tortoise was relocated to the Geneva SF enclosure.

Data was collected and a DCNR data sheet was completed for each tortoise. Each animal was given a general health assessment and unique mark (numbering) before it was released into the enclosure. None of the animals mentioned above showed signs or symptoms of active disease (URDS). Monitoring of the enclosure will continue throughout the rest of the year until it is dismantled. All animals mentioned above will reside in the enclosure for 12 months. At that time, Oct 2019 or thereafter, the enclosure will be dismantled by a prescribed fire in the timber stand where the enclosure is situated.

Table 6. Translocation

Report year	Total number of tortoises permanently translocated	Number of GTs to protected lands	Number of GTs to unprotected lands	Number of tortoises temporarily relocated	Were GTs released into soft enclosures and held for at least 6 months?
2016	16	16	0	0	Soft release
2017	21	21	0	0	yes
2018	7	7	0	1	Yes

FLORIDA FWCC

- a) Describe type(s) of projects or actions that prompted the permanent translocation or temporary relocation of gopher tortoises (in narrative form)

All development projects that will impact gopher tortoises are required to obtain a relocation permit from the FWC and relocate tortoises prior to any land clearing or vegetation disturbance. Tortoises must be moved to a permitted recipient site or relocated on-site if sufficient habitat will remain post-development.

Under the FWC's gopher tortoise permit system, a total of 7,863 gopher tortoises were relocated from development sites during FY18. This includes adult, juvenile, and hatchling tortoises. All off-site relocation requires tortoises to be released into temporary enclosures for 6-12 months at the recipient site. Of the total number of tortoises relocated, 7,556 were relocated to long or short-term protected recipient sites, 307 were relocated on-site, and 322 were temporarily relocated for utility right-of-way projects. Updates to the number of tortoises temporarily relocated in 2014, 2015, 2016 and 2017 are notated in the table below, as a data error was detected during the preparation of this year's report. As a result of ongoing efforts by the FWC and its partners to encourage humane relocation of gopher tortoises from sites with previously-permitted Incidental Take Permits (ITP), 721 adult, juvenile and hatchling gopher tortoises were relocated to three protected sites in the Florida Panhandle. These three sites are Avalon Plantation in Jefferson County, Nokuse Plantation in Walton County and Eglin Air Force Base in Okaloosa County. Although these ITP recipient sites are not permitted under the current standard, they do follow the current practices and guidelines and are considered protected sites because of a perpetual conservation easement that prevents future development on Avalon Plantation and Nokuse Plantation and an Integrated Natural Resource Management Plan that Eglin Air Force Base follows.

In addition to the permitted relocations, the FWC has continued efforts to identify solutions for waif tortoises. Waif tortoises are gopher tortoises that have been removed from the wild (either unauthorized or due to injury) and are not associated with a permitted relocation. One solution

includes establishing “waif tortoise recipient sites” on lands owned by local governments and conservation organizations. For this reporting period, one publicly-managed waif recipient site was established at the Bay Pines STEM Center in St. Petersburg. The new recipient site has not yet received any tortoises.

Several existing waif recipient sites received gopher tortoises during the reporting period: Circle B Bar Reserve received 14 adult tortoises, 6 sub-adult tortoises, and 1 juvenile (9 males, 5 females, and 7 unknown sex); Perico Preserve received 3 adult tortoises and 2 juveniles (3 males, 2 unknown sex), and Winding Waters Preserve received 35 adult tortoises, and 6 sub-adult/juvenile tortoises (16 males, 19 females, and 6 unknown sex). No tortoises were released at the Nixon Smiley Pinelands Preserve, Kingman Preserve, Panama City Beach, Clewiston, or Holt waif sites.

Nine non-releasable gopher tortoises were transferred from wildlife rehabilitators to FWC-approved educational facilities. Gopher tortoises are deemed non-releasable when they have an ailment that otherwise would prevent them from surviving in the wild. All non-releasable tortoises transferred were either missing a forelimb, incurred a spinal injury, or had some other ailment that prevented them from digging a burrow or foraging naturally. The Busch Wildlife Sanctuary, Clinic for the Rehabilitation of Wildlife, Goose Creek Wildlife Sanctuary, Millenia Gardens Elementary School, Imagine our Florida, Inc., Nease Beachfront Park (St. Johns County), and the Alabama Department of Conservation and Natural Resources each received one non-releasable gopher tortoise for their education programs (4 males, 2 females, 1 unknown sex). The Georgia Department of Natural Resources received 2 non-releasable male gopher tortoises.

Under a Memorandum of Agreement (MOA) with the South Carolina Department of Natural Resources (SCDNR), there is an ongoing effort to restock gopher tortoises on public lands where they are currently depleted in South Carolina through the waif program. During FY18, 8 tortoises (1 male, 1 female, 6 unknown sex) were transferred from Florida to SCDNR. The FWC is currently working with SCDNR on creation of a new MOA that will extend the agreement by five (5) years.

Table 6. Translocation

Report year	Total number of tortoises permanently translocated	Number of GTs to protected lands	Number of GTs to unprotected lands	Number of tortoises temporarily relocated	Were GTs released into soft enclosures and held for at least 6 months?
2009	3,091	199	2,892*	6	Yes
2010	2,724	2,393	331	1,165	Yes
2011	2,623	2,267	356	291	Yes
2012	2,023	1,921	102	169	Yes
2013	2,128	1,979	149	165	Yes
2014	2,822	2,561	122	374*	Yes
2015	5,692	5,248	195	453*	Yes
2016	7,889	7,515	262	347*	Yes
2017	6,582	6,334	248	558*	Yes
2018	8,584	8,277	307	322	Yes

\*numbers corrected in 2018

#### GEORGIA DNR

- a) Describe type(s) of projects or actions that prompted the permanent translocation or temporary relocation of gopher tortoises (in narrative form)

Eighty-six tortoises were translocated from a mine site in Brantley County, one of which was released at Penholoway WMA, the remainder at Flat Tub WMA. Ninety-eight hatchlings were produced from eggs collected at the mine site, 41 of which will be released in 2019 at a site to be determined, while the remaining 57 will be released at the Lanahassee Tract, also in 2019. Sixty-two tortoises were translocated from a private tract (Willow Nook Farms) to the Lanahassee Tract.

Table 6. Translocation

Report year	Total number of tortoises permanently translocated	Number of GTs to protected lands	Number of GTs to unprotected lands	Number of tortoises temporarily relocated	Were GTs released into soft enclosures and held for at least 6 months?
2009	2	2	0	0	Yes
2010	3	3	0	0	Yes
2011	18	18	0	0	Yes
2012	19	19	0	0	Yes
2013	0	0	0	0	n/a
2014	20	12	8	0	8 GTs = yes 12 head-started GTs = no
2015	350	350	0	0	207 GTs = yes 143 headstarted GTs = no
2016	198	198	0	53	170 GTs = yes 28 headstarted GTs = no
2017	157	157	0	0	yes
2018	148	148	0	0	yes

SOUTH CAROLINA DNR

- a) Describe type(s) of projects or actions that prompted the permanent translocation or temporary relocation of gopher tortoises (in narrative form)

SCDNR and SREL have collaborated since 2006 to utilize waif tortoise from the entire species range as a conservation tool to establish a viable population at AGTHP.

Table 6. Translocation

Report year	Total number of tortoises permanently translocated	Number of GTs to protected lands	Number of GTs to unprotected lands	Number of tortoises temporarily relocated	Were GTs released into soft enclosures and held for at least 6 months?
2012					
2013	18	all	0	0	yes
2014	11	all	0	0	yes
2015	8	all	0	0	yes
2016	44	all	0	0	yes
2017	10 – Slater 3 waif – AGTHP*	All	0	0	yes
2018	8 waif AGTHP*	All	0	0	yes

\*293 – tortoises translocated to AGTHP. And additional 66 hatchling, yearling, 2-year-old tortoises were released as part of a survivorship and movement study from eggs collected at AGTHP during the report period.

GEORGIA DOT

- a) Describe type(s) of projects or actions that prompted the permanent translocation or temporary relocation of gopher tortoises (in narrative form)

None reported

Table 6. Translocation

Report year	Total number of tortoises permanently translocated	Number of GTs to protected lands	Number of GTs to unprotected lands	Number of tortoises temporarily relocated	Were GTs released into soft enclosures and held for at least 6 months?
2013	0	0	0	0	N/A
2014	0	0	0	0	N/A
2015	32	32	0	0	Unknown
2016	32	32	0	0	Unknown
2017	0	0	0	0	N/A
2018	0	0	0	0	N/A

POARCH BAND OF CREEK INDIANS

None reported.

AMERICAN FOREST FOUNDATION

No report received.

LONGLEAF ALLIANCE

None reported.

JONES CENTER

- a) Describe type(s) of projects or actions that prompted the permanent translocation or temporary relocation of gopher tortoises (in narrative form)

N/A – No translocations reported.



ALABAMA FORESTRY COMMISSION

- a) Describe type(s) of projects or actions that prompted the permanent translocation or temporary relocation of gopher tortoises (in narrative form)

An enclosure was constructed at GSF with the assistance of the US Forest Service and other partners. Seven gopher tortoises were permanently translocated to the site through a coordinated effort with Ericha Nix with DCNR.

Table 6. Translocation

Report year	Total number of tortoises permanently translocated	Number of GTs to protected lands	Number of GTs to unprotected lands	Number of tortoises temporarily relocated	Were GTs released into soft enclosures and held for at least 6 months?
2015	8 GTs were translocated to GSF.	N/A	N/A	N/A	Yes – GTs held prior to being released on GSF.
2016	N/A	N/A	N/A	N/A	N/A
2017	NA	NA	NA	NA	NA
2018	NA	NA	NA	NA	NA

NATIONAL PARK SERVICE

Not reported.

ALABAMA POWER COMPANY

Not reported.

**ALL OTHER EDUCATION AND OUTREACH NOT MENTIONED IN ABOVE SECTIONS**ARMY

No report received.

NAVY

- a) Publications [signage, brochures];

NS Mayport has a natural resources binder containing information on gopher tortoises that was made available at various public areas throughout the base. An Environmental Wharfside Training was conducted December 2018. Gopher Tortoise awareness was a part of this training.

b) Workshops and events [date, location, audience, organizer];

Presentations were made by NAS Jacksonville to middle and high school students summarizing gopher tortoise importance, burrow identification and conservation. The Environmental Division participated in an Earth Day event held on Station with over 1600 visitors and discussed gopher tortoise habitat requirements. Clean up of Tillie K Fowler Park (Navy property) removed debris from gopher tortoise habitat.

c) Public service broadcasts/announcements;

NAS Jacksonville submitted gopher tortoise awareness articles in JAX Air News.

d) Electronic media [website, Listserv, other internet-based outreach]

N/A

#### AIR FORCE

a) Publications [signage, brochures];

Avon Park AFR: Scientific publication: Castellon, T.D., B.B. Rothermel and J.M. Bauder. 2018. *Gopher Tortoise Burrow Use, Home Range, Seasonality, and Habitat Fidelity in Scrub and Mesic Flatwoods of Southern Florida*. *Herpetologica*, 74(1), 8-21.

b) Workshops and events [date, location, audience, organizer];

Eglin AFB: Event: Sustaining Military Readiness Conference; Date: 13-16 August 2018, St Louis, MO; Audience: Range users/community Planners, local/state governments, and DoD leadership; Organizer: DoD Natural Resources (NR) Program, et al. Eglin AFB Natural Resources personnel presented overview of GT management strategies including INRMP goals and objectives, partnerships, DoD Legacy projects, consultations and benefits to mission.

45<sup>th</sup> SW: 1) Set up a display at Patrick AFB as part of Earth Day outreach in April 2018; the audience was 45 SW personnel and family members. The display was also set up at Cape Canaveral AFS for Family Day in April 2018; the audience was 45 SW personnel and family members. The display includes education material on gopher tortoises. 2) Provided natural resources training to contractor, security, Navy and explosive ordnance disposal personnel with authorization to occasionally travel off road. The training presentation included a discussion on gopher tortoise use of roads and road shoulders and using caution when driving in areas where tortoises may burrow or forage.

c) Public service broadcasts/announcements; or

Eglin AFB: Short video interview of Eglin Natural Resources personnel highlighting Air Force partnership with Southern Company and tortoise management goals. Interview airs during Southern Company sponsored outdoor television programs.

MacDill AFB: Briefings were provided to construction crews for Army helicopter beddown project.

- d) Electronic media [website, Listserv, other internet-based outreach]

Eglin AFB: Media release from Southern Company highlighting partnership with Air Force for conservation. Online resource release to include video, pictures and text.

#### MARINES

No report received.

#### USFS

- a) Publications [signage, brochures];  
b) Workshops and events [date, location, audience, organizer];

Indigo Snake and Wildlife Festival, 5/4/2018, General public and local schools, Organized by ADCNR, Forest Service, and Covington County Extension

- c) Public service broadcasts/announcements;  
d) Electronic media [website, Listserv, other internet-based outreach]

None reported.

#### USFWS

- a) Publications [signage, brochures];  
HS: Installed new gopher tortoise interpretive sign along trail.  
b) Workshops and events [date, location, audience, organizer];  
c) Public service broadcasts/announcements; or  
d) Electronic media [website, Listserv, other internet-based outreach]

#### ALABAMA DCNR

- a) Publications [signage, brochures];

Brochures Created: Burrow identification guide, land management and gopher tortoise activity calendar, Living with Gopher Tortoises, and gopher tortoise activity book. All are available on the <http://www.outdooralabama.com> website along with other resources. Burrow identification training PowerPoint was created and available on the <http://www.outdooralabama.com> website.

- b) Workshops and events [date, location, audience, organizer];

Date	Location	Audience	Organizer
10/5/2017	Henry Co.	Private landowners/citizens	Henry Co Forestry Planning Committee (FPC)

11/10/2017	Auburn University (AU)	Wildlife students	AU
12/5-6/2017	Poarch Creek Band of Indians (PBCI), Atmore	Private landowners/citizens	DWFF
3/31/2018	AU	Private landowners/citizens	AU / DWFF
3/6/2018	Crampton Bowl, Montgomery	Private landowners/citizens	DWFF
3/10/2018	PBCI	Private landowners/citizens	DWFF
3/18/2018	Coffee Co	Private landowners/citizens	Alabama Forestry Commission
3/21/2018	Birmingham	Private landowners/citizens	Birmingham Zoo
3/27/2018	Coffee Co	Private landowners/citizens	Coffee Co FPC
5/4/2018	Conecuh National Forest	Private landowners/citizens	DWFF
5/16/2018	PBCI	Private landowners/citizens	PBCI/DWFF
6/4/2018	Birmingham	Alabama teachers	Birmingham Zoo
6/21/2018	Phenix City, Russell Co	Loggers and Foresters	WestRock
6/26/2018	Fort Rucker, AL	Private landowners/citizens	DWFF
8/2/2018	Union Springs, Bullock Co	Bullock Co Students	MERC
8/7-9/2018	AU Solon Dixon Center	Wildlife and Forestry professionals	DWFF/Jones Center
8/18/2018	Brewton, AL	Loggers and foresters	IP
9/18/2018	Grove Hill, AL	Loggers and foresters	Boise
9/27/2018	Conecuh Co	Private landowners/citizens	Conecuh Co FPC

The Alabama Tortoise Alliance (ALTA), created in Dec 2017, is a partnership that includes private landowners, state, tribal and federal agencies, local governments, organizations and businesses. The purpose of the ALTA is to foster an increased level of communication, collaboration and conservation among stakeholders to actively manage and conserve gopher tortoise populations and habitat in Alabama so that the species no longer warrants state or federal protection. Conservation and recovery of gopher tortoise through implementation of this alliance *will require the cooperation* of non-industrial private landowners; local governments; state, tribal and federal agencies; non-governmental organizations; and business interests.

Although this effort was initiated by the Alabama Department of Conservation and Natural Resources, Division of Wildlife and Freshwater Fisheries, in collaboration with the above-mentioned stakeholders, *it cannot be successfully implemented without significant direct involvement of all Alabama stakeholders*. Over 60 participants attended the first meeting hosted

by the Poarch Band Creek Indians in Atmore Alabama. At the end of the meeting participants requested that a second meeting be held 6 months thereafter. In February, the second meeting took place at Fort Rucker and over 50 stakeholders participated representing over 20 different affiliations. At both meetings stakeholders received updates and presentations from a variety of guest speakers including USFWS. Stakeholders have stated that they find value in ALTA meetings and wish for them to continue while also stating that they appreciate the opportunities to engage, share thoughts and concerns with USFWS and other professionals regarding various gopher tortoise topics.

c) Public service broadcasts/announcements; or

Governor Kay Ivey signed a proclamation declaring April 10<sup>th</sup> as Gopher Tortoise Day in Alabama. Several Gopher Tortoise Day events took place in April bringing awareness to the tortoise and its habitat.

d) Electronic media [website, Listserv, other internet-based outreach]

Facebook posts throughout the year provided education and information to DWFF constituents about gopher tortoise conservation efforts in Alabama, biology and habitat management.

#### FLORIDA FWCC

a) Publications [signage, brochures];

N/A

b) Workshops and events [date, location, audience, organizer];

N/A

c) Public service broadcasts/announcements; or

N/A

d) Electronic media [website, Listserv, other internet-based outreach]

N/A

#### GEORGIA DNR

a) Publications [signage, brochures];

None

b) Workshops and events [date, location, audience, organizer];

Tortoise and tortoise habitat conservation was a major component at the following workshops:

- Master Timber Harvester Workshop; Oct. 18, 2017; Swainsboro
- Southeastern Wood Producers Continuing Education Workshop; Nov. 1, 2017; McRae
- Southeastern Wood Producers Continuing Education Workshop; Dec. 5, 2017; Waycross

- Southeastern Wood Producers Continuing Education Workshop; Dec. 20, 2017; Macon
- Master Timber Harvester Workshop; Feb. 21, 2018; Forsyth
- Master Timber Harvester Workshop; April 18, 2018; Waycross
- Master Timber Harvester Workshop; July 25, 2018, Forsyth

Tortoise and tortoise habitat conservation was a major component at the following events:

- June 18-23, 2018 – Teacher Conservation Workshop in Partnership with Georgia Forest Commission. During that workshop, discussion with 19 participants on how forestry management and natural resources management go hand in hand took place. During the session on longleaf pines, discussion included the role of fire as a management tool for both the longleafs and gopher tortoises. Participants had an up-close and personal encounter with a live gopher tortoise during discussion about its biology and conservation status.
- Charlie Elliott Wildlife Center (CEWC) conducted over 30 outreach education programs across the state that featured gopher tortoises to a total of 11,535 adults and children. These programs included Sportsman’s Day at the Capitol, Weekend for Wildlife, Rattlesnake Wildlife Festival, Reptile Day on the Lawn at UGA, and Coastfest, along with several school programs for K-12 audiences.
- CEWC hosted onsite educational program to 2,481 student’s grades K-5<sup>th</sup> that included gopher tortoise encounters, conservation and biology. During the summer months, an additional 43 day campers explored gopher tortoise diets and ranges.
- 5/8-9/2018 – Georgia Association of Tax Officials annual conference, Athens, Ga. DNR booth with gopher tortoise and other outreach animals is always the most popular booth.

c) Public service broadcasts/announcements; or

Press releases:

- 12/9/2017 – “New Partnership Protecting Lee County wetlands, endangered plant” (no longer online). Mentions gopher tortoises among upland conservation species.
- 2/6/2018 – Eblast, enews and other coverage of nongame FY2017 annual report prominently featuring gopher tortoise conservation.  
<https://content.govdelivery.com/accounts/GADNR/bulletins/1d8b3f0>  
Story map at:  
[https://gadnrwrdd.maps.arcgis.com/apps/MapJournal/index.html?appid=8c85474a778d4a81934601bb463dbd38&utm\\_campaign=&utm\\_content=&utm\\_medium=email&utm\\_source=govdelivery&utm\\_term](https://gadnrwrdd.maps.arcgis.com/apps/MapJournal/index.html?appid=8c85474a778d4a81934601bb463dbd38&utm_campaign=&utm_content=&utm_medium=email&utm_source=govdelivery&utm_term)
- 10/16/2017 – DNR news release announcing Sansavilla Phase 3 acquisition, mentions gopher tortoise (also a focus of the actual acquisition).  
<https://www.conservationfund.org/news/press-releases/1732-sansavilla-wildlife-management-area-dedicated-in-georgia>

d) Electronic media [website, Listserv, other internet-based outreach]

Facebook :

- 9/22/2017 Wildlife tech Matthew Stoddard spotted this gopher tortoise hatchling at a burrow on Altama Plantation WMA this week. Learn more about conserving our state reptile  
<https://www.facebook.com/WildlifeResourcesDivisionGADNR/videos/10154935237783388/>
- 3/19/2018 Wildlife Resources Division - Georgia DNR added more land to its conservation arsenal with the purchase of Sansavilla WMA. The area is prime habitat for both the gopher tortoise and eastern indigo snake and is consider the "capstone of the Altamaha corridor project."  
<https://www.facebook.com/WildlifeResourcesDivisionGADNR/posts/10155371550168388>
- 4/4/2018 The tracks belong to our state reptile!  
<https://www.facebook.com/WildlifeResourcesDivisionGADNR/photos/a.107070953387/10155410375973388>
- 4/10/2018 Today is Gopher Tortoise Day! Thanks to everyone helping to conserve our state reptile. Georgia's Gopher Tortoise Initiative has conserved 46,000+ acres and protected nearly 50 tortoise populations!  
<https://www.facebook.com/WildlifeResourcesDivisionGADNR/posts/10155425541233388>
- 4/27/2018 Be a Conservasaurus rex and help keep Georgia's wildlife from going extinct. Go #TagWild today:  
<https://www.facebook.com/WildlifeResourcesDivisionGADNR/videos/10155459440943388>
- 4/29/2018 "Members of a Georgia DNR gopher tortoise crew were egg-static to stumble upon this turkey nest at Yuchi WMA in Waynesboro."  
<https://www.facebook.com/WildlifeResourcesDivisionGADNR/posts/10155460117453388>
- 7/7/2018 "Help keep wildlife wild in Georgia by leaving them be. These hatch year gopher tortoises were dropped off at a state park last week. Tortoises that are moved away from where they're found will try to return to their home which can put them in more danger. These 3 will be raised and released on one of Georgia's WMAs where they'll hopefully contribute to building another population.  
<https://www.facebook.com/WildlifeResourcesDivisionGADNR/photos/a.107070953387/10155598089083388>
- 9/4/2018 "This gopher tortoise hatchling has to be the cutest resident of Ochopee Dunes WMA. Wildlife Technician Marylou Moore was excited to find this little guy sitting outside of its burrow because it was the first juvenile she's found on land recently added to the WMA."  
<https://www.facebook.com/WildlifeResourcesDivisionGADNR/videos/683146318716334/>
- Learn more about what Georgia's gopher tortoise conservation initiative:
- <https://www.facebook.com/WildlifeResourcesDivisionGADNR/videos/683146318716334/>

## Instagram:

- 4/10/2018 Happy gopher tortoise day! 🐢🌿  
<https://www.instagram.com/p/BhaHwXShT9o/>

#### Twitter

- 4/10/2018 Happy Gopher Tortoise Day to Georgia's state reptile!  
ow.ly/I9Hf30jqh27 pic.twitter.com/T4xjNgeEeN

#### You Tube

- 11/28/2017 Indigo returns to gopher tortoise burrow.  
[https://www.youtube.com/edit?o=U&video\\_id=WXWJkoHpPgU](https://www.youtube.com/edit?o=U&video_id=WXWJkoHpPgU)
- 4/5/2018 From the Ground Up: How Restoring Habitat Boosts Quail and Other Wildlife  
[https://www.youtube.com/edit?o=U&video\\_id=kTME4aQORo](https://www.youtube.com/edit?o=U&video_id=kTME4aQORo)
- 4/20/2018 It isn't too late for wildlife in Georgia.  
[https://www.youtube.com/watch?v=fHhN2C6eU\\_k](https://www.youtube.com/watch?v=fHhN2C6eU_k)

#### WRD Blog

- 10/6/2017 Big Addition for Big Turtle Year  
<https://georgiawildlife.blog/2017/10/06/big-addition-for-big-turtle-year/>
- 2/1/2018 Scaly Gentle Giants of the Southeast  
<https://georgiawildlife.blog/2018/02/01/scaly-gentle-giants-of-the-southeast/>

#### SOUTH CAROLINA DNR

##### a. Publications [signage, brochures];

- i. Small, M, J.W. Dillman, K.A. Buhlmann, T.D. Tuberville, J.B. Kessler. 2018. Effects of Canid Damage on Thermal Characteristics of Gopher Tortoise (*Gopherus Polyphemus*) Burrows at the Northern Extent of the Species' Range. *Herpetological Review*, 49(2), 224-229.

##### b. Workshops and events [date, location, audience, organizer]; None to report.

##### c. Public service broadcasts/announcements; or None to report.

##### d. Electronic media [website, Listserv, other internet-based outreach] None to report.

#### GEORGIA DOT

None reported.

#### POARCH BAND OF CREEK INDIANS

None reported.

#### AMERICAN FOREST FOUNDATION

No report received.

#### LONGLEAF ALLIANCE

None reported.

#### JONES CENTER

##### a) Publications [signage, brochures];



- b) Workshops and events (date, location, audience, organizer);
  - i) Gopher Tortoise Population Target Workshop (Host), November 14-16, 2017, Ichauway, Gopher Tortoise Demographic Working Group. Organized by USFWS.
  - ii) Gopher Tortoise Workshop, June 16, 2018, public, Thomasville, Ga, Birdsong Nature Center.
  - iii) Gopher tortoise monitoring workshop (Instructor), December 12-14, 2017, Ichauway, Jones Center.
  - iv) Imperiled species/gopher tortoise field presentation, February 15, 2018, Ichauway, Emory Business School, Jones Center.
  - v) Gopher tortoise habitat management field presentation, February 22, 2018, Ichauway, NRCS staff, Jones Center
  - vi) Gopher Tortoise Survey Training (instructors), 8/6-8/9/18, Solon Dixon Center, AL, Alabama DCNR.
- c) Public service broadcasts/announcements; or
- d) Electronic media [website, Listserv, other internet-based outreach]
  - i) <http://www.jonesctr.org/products/pubbriefs/eFFECTS> of non-native predators on the gopher tortoise
  - ii) <https://www.untamedscience.com/biodiversity/gopher-tortoise/>

#### ALABAMA FORESTRY COMMISSION

- a) Publications [signage, brochures];

AFC “Treasured Forests” magazine. Article entitled “Gopher Tortoise Conservation at Geneva State Forest”
- b) Workshops and events [date, location, audience, organizer];

Landowner tour conducted at GSF on 3/20/2018 focusing on longleaf pine and management of sandhill habitats, 12 attendees, conducted by AFC

Geneva County Classroom in the Forest, April-May, 2018, Geneva State Forest, 2 events, 83 participants
- c) Public service broadcasts/announcements; or
- d) Electronic media [website, Listserv, other internet-based outreach]

#### NATIONAL PARK SERVICE

No report received.

ALABAMA POWER COMPANY

None reported.

GEORGIA POWER COMPANY

- a) Publications [signage, brochures];
- b) Workshops and events [date, location, audience, organizer];
- c) Public service broadcasts/announcements; or
- d) Electronic media [website, Listserv, other internet-based outreach] Field interview at Plant Hatch with Molly Samuel of WABE public radio station from Atlanta

**RESEARCH STUDIES – CONDUCTED BY OR SUPPORTED BY AGENCY/ORGANIZATION (IF PUBLISHED, INCLUDE CITATION)**ARMY

No report received.

NAVY

N/A

AIR FORCE

Eglin AFB: Partnered with Texas A&M to conduct passive survey and monitoring of ITP tortoise populations to include camera trapping potential predator impacts to translocated animals, commensal use of ITP burrows, and movement/general activity of ITP tortoises in novel habitats. Effort included deploying multiple camera arrays at all ITP tortoise enclosures. Efforts thus far have documented breeding attempts, various commensal species utilizing burrows, and adult tortoise predation by coyotes.

Moody AFB: 1) Demographic Monitoring of Gopher Tortoise Populations on Moody AFB, GA. Valdosta State University, Dr. Mitch Lockhart, Principal Investigator. 2) Interactions of Armadillos and Gopher Tortoises, to include analysis of armadillo use of gopher tortoise burrows, Dr. Colleen McDonough and Dr. Corey Anderson, Principal Investigators, Valdosta State University. 3) Publications: 2018 Gopher Tortoise Council Presentation: Anderson, C.D., C.M. McDonough, N. Bhandari, G.W. Lee, and J.M. Lockhart. 2018. The Co-distribution of Nine-banded Armadillo (*Dasypus novemcinctus*) and Gopher Tortoise (*Gopherus polyphemus*) Burrows at Moody AFB in south Georgia, USA.

MARINES

No report received.

USFS

The National Forest in Florida is currently participating in a project under an MOU with the Florid Fish and Wildlife Conservation Commission, Fish and Wildlife Foundation of Florida, Inc. and Wiregrass Ecological Associates. The Research Study Plan is titled *THE SITE FIDELITY RESPONSE OF TRANSLOCATED GOPHER TORTOISES (GOPHERUS POLYPHEMUS) TO ENCLOSURE TIME, MECHANICAL THINNING, PRESCRIBED BURNING, AND HERBICIDE APPLICATION ON THE APALACHICOLA NATIONAL FOREST IN FLORIDA*.

Long-term population studies conducted by Auburn University on the Conecuh NF gopher tortoise population

USFWS

None reported.

ALABAMA DCNR

In 2018, Wehle personnel continued monitoring the movements of 6 transmitted tortoises as reported in 2015–2017 resulting in a total of 4 field seasons of movement data. In Sept/Oct 2018, we recaptured all tracked individuals (except one) and safely removed the affixed transmitters. Our findings will enable us to better understand site retention and movements following establishment after translocation. Those outfitted with transmitters include 3 individuals translocated in 2006, 1 individual translocated in 2008, and 2 individuals translocated in 2009. See details below:

Date captured/outfitted with transmitter:

1. Tortoise #31 (Male): 6/22/2015
2. Tortoise #40 (Male): 6/23/2015
3. Tortoise #43 (Female): 6/25/2015
4. Tortoise #3 (Female): 7/9/2015
5. Tortoise #4 (Male): 7/9/2015
6. Tortoise #15 (Male): 7/11/2015

\*\*Efforts are underway to reconcile the 2018 data with the 2015–2017 dataset to analyze movement data and estimate annual home range sizes of the 6 marked tortoises.\*\*

FLORIDA FFWCC

Castellón, Traci. In progress. The Effects of Translocation on Gopher Frog Survival and Behavior.

Dziadzio, M., E. Sievers, and D. Burr. Investigation of a large-scale gopher tortoise (*Gopherus polyphemus*) mortality event on a public conservation land in Florida. *Journal of Wildlife Diseases* 54.

Dziadzio, M., S. Cobble, and D. Burr. In progress. Gopher Tortoise (*Gopherus polyphemus*) repatriation of a linear utility corridor following temporary exclusion.

Napier, J. and A. Savage. Final Report. Impacts of gopher tortoise (*Gopherus polyphemus*) temporary exclusion and relocation on spatial habitat use, survival, immunity, and disease.

#### GEORGIA DNR

Quinn, D.P., K.A. Buhlmann, J.B. Jensen, T.M. Norton, and T.D. Tuberville. 2018. Post-release movement and survivorship of head-started gopher tortoises. *Journal of Wildlife Management* 82:1545-1554.

#### SOUTH CAROLINA DNR

Survivorship and movements – Conducting a telemetry study funded by State Wildlife Grants at AGTHP to look at differences between hatchling, yearling, and 2-year old headstarts collected as eggs at AGTHP.

Restocking with Waifs – evaluating using waif tortoises as a conservation tool – efforts in collaboration with Drs. Tuberville and Buhlmann (SREL) to continually assess using waifs to create an MVP at AGTHP.

AGTHP – Long-term Site Fidelity, Social Integration, and Disease Status – SCDNR collaboration with SREL. Graduate student Rebecca McKee has finished her second year of this project. She has identified burrows and trapped tortoise at AGTHP. Each tortoise has been swabbed (oral and cloacal) for disease screening. Nests have been collected for genotyping to examine social integration.

#### GEORGIA DOT

GDOT funded a 2 year study being conducted as a partnership effort between UGA and The Orianne Society. The study aims to develop the following management tools and directives for gopher tortoise that will reduce the likelihood of them become listed under the ESA in Georgia.

The GDOT survey methodology will be updated and elaborated upon to include guidance on how to select suitable recipient sites, excavate tortoises from impact areas, relocate individuals, as well as a protocol for proper disease testing and basic post-relocation monitoring.

A modeling tool will be created in order to predict high impact areas between gopher tortoises and roadway by: 1) developing the model based on the size of the gopher tortoise populations on both sides of the road, the quality of the available habitat, the size of the road, and the proximity to towns; and 2) using field surveys, burrow scoping, and road mortality data to verify the model predictions. This effort will ultimately lead to GIS layers that GDOT can use to identify potential areas where roads may impact tortoise populations and a summary of “hotspots” of high tortoise-road conflict created by measuring road usage.

#### POARCH BAND OF CREEK INDIANS

None reported.

AMERICAN FOREST FOUNDATION

No report received.

LONGLEAF ALLIANCE

None reported.

JONES CENTER

Howze, J.M. and L. L. Smith. 2019. Detection of Gopher Tortoise Burrows after a Prescribed Fire Event. Journal of Fish and Wildlife Management. (*In press*).

McIntyre, K.M., L.M. Conner, S.B. Jack, E.M. Schlimm, and L.L. Smith. 2019. Wildlife Habitat condition in open pine woodlands: field data to refine management targets. Forest Ecology and Management. (*In press*).

ALABAMA FORESTRY COMMISSION

N/A.

NATIONAL PARK SERVICE

No report received.

ALABAMA POWER COMPANY

None reported.

GEORGIA POWER COMPANY

None reported.

**CCA AGENCY/ORGANIZATION CONSERVATION STRATEGY**

(see CCA Section 10.2)

ARMY

No report received

NAVY

- a) Deviations from CCA Agency Conservation Strategy N/A
- b) New goals and strategies not included under the CCA Agency Conservation Strategy N/A

AIR FORCE

- a) Deviations from CCA Agency Conservation Strategy
- b) New goals and strategies not included under the CCA Agency Conservation Strategy

MARINES

No report received.

USFS

- a) Deviations from CCA Agency Conservation Strategy N/A
- b) New goals and strategies not included under the CCA Agency Conservation Strategy N/A

USFWS

- a) Deviations from CCA Agency Conservation Strategy
- b) New goals and strategies not included under the CCA Agency Conservation Strategy

ALABAMA DCNR

- a) Deviations from CCA Agency Conservation Strategy None
- b) New goals and strategies not included under the CCA Agency Conservation Strategy None

FLORIDA FWCC

- a) Deviations from CCA Agency Conservation Strategy N/A
- b) New goals and strategies not included under the CCA Agency Conservation Strategy N/A

GEORGIA DNR

- a) Deviations from CCA Agency Conservation Strategy None
- b) New goals and strategies not included under the CCA Agency Conservation Strategy None

SOUTH CAROLINA DNR

- a) Deviations from CCA Agency Conservation Strategy None to report.
- b) New goals and strategies not included under the CCA Agency Conservation Strategy None

GEORGIA DOT

None reported.

POARCH BAND OF CREEK INDIANS

None reported

AMERICAN FOREST FOUNDATION

No report received.

LONGLEAF ALLIANCE

- a) Deviations from CCA Agency Conservation Strategy None
- b) New goals and strategies not included under the CCA Agency Conservation Strategy None

JONES CENTER

- a) Deviations from CCA Agency Conservation Strategy N/A
- b) New goals and strategies not included under the CCA Agency Conservation Strategy N/A

ALABAMA FORESTRY COMMISSION

- a) Deviations from CCA Agency Conservation Strategy - None
- b) New goals and strategies not included under the CCA Agency Conservation Strategy - None

NATIONAL PARK SERVICE

Not reported.

ALABAMA POWER COMPANY

- a) Deviations from CCA Agency Conservation Strategy - None
- b) New goals and strategies not included under the CCA Agency Conservation Strategy - None

GEORGIA POWER COMPANY

- a) Deviations from CCA Agency Conservation Strategy - None
- b) New goals and strategies not included under the CCA Agency Conservation Strategy - None

## APPENDIX I

*Gopher Tortoise Candidate Conservation Agreement (GTCCA)*

**Reporting Period: October 1, 2017 – September 30, 2018**

**Report due to the CCA Gopher Tortoise Team (GTT) Chair: February 16, 2018**

**Annual Assessment Report for:** \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_

*Organization/Agency name*

**Submitted by:** \_\_\_\_\_

**Email:** \_\_\_\_\_

**Phone:** \_\_\_\_\_

\_\_\_\_\_  
*Organization/Agency contact name*

*The Candidate Conservation Agreement for the Gopher Tortoise (GTCCA) was signed and implemented in December 2008. The Agreement requires an annual assessment report from each party to the agreement to document conservation activities occurring within the gopher tortoise' non-federally listed range. To facilitate the compilation of information, this report format should be followed by all CCA partners. The assessment report should include activities completed on an annual basis for the period covering October 1 – September 30. Not all sections included below will be applicable to each organization. If sections of this report are not applicable to your organization's gopher tortoise conservation activities or are not applicable for the current reporting period, please indicate so. Please do not report the same data/information more than 1 time in the submitted report. Tables are provided below to help data on acres, management of gopher tortoise habitat, habitat protected, population monitoring, and translocations be consistent and easy to track and compile. Please add a new row for each reporting year.*

*The annual assessment report will be submitted to the Gopher Tortoise Team Chair by February 16, 2019. The final CCA Annual report will be compiled and submitted by the Gopher Tortoise Team Chair to the U.S. Fish and Wildlife Service (USFWS) and the Southeast Regional Partnership for Planning and Sustainability (SERPPAS) Principals by March 20, 2019. The final report will also be posted to the GTCCA website.*

### II. Executive Summary

Provide a brief summary of activities completed during the current reporting year.

### III. Relevant Activities to Listing Factor A (The present or threatened destruction, modification, or curtailment of the species habitat or range).

*Complete the table below to provide information on acres and management of gopher tortoise habitat under your agency's authority or management. Please combine totals if reporting on multiple properties.*

**b) How much potential gopher tortoise habitat does the signatory agency directly own or manage?**



- i. Total estimated acreage of protected gopher tortoise habitat (either by public ownership, by easement, or covered under a management plan that provides for the conservation of the gopher tortoise)

Table 1. Acres of potential gopher tortoise habitat owned or managed by the signatory agency (put n/a if not applicable)

Report year	Protected lands (Public)	Protected lands (Private)	Other lands owned or managed by the agency
2009			
2010			
2011			
2012			
2013			
2014			
2015			
2016			
2017			
2018			

- c) **Provide a short narrative regarding the type of management activities that were completed on the signatory's lands or other lands during the year, including any challenges or successes.**

- i. Total estimated gopher tortoise habitat acres managed on "owned or managed lands" or "other lands" for reporting agency/organization.

Table 2. Land Management (numbers reflect acres of potential gopher tortoise habitat)

Report year		*Total acres restored or maintained as GT habitat	Acres burned - growing season (%)	Acres burned - dormant season (%)	Acres of invasive species treated	Acres managed (e.g., mechanical, longleaf planting)
2009	Owned or managed lands					
	**Other lands					
2010	Owned or managed lands					
	**Other lands					
2011	Owned or managed lands					
	**Other lands					
2012	Owned or managed lands					
	**Other lands					
2013	Owned or managed lands					
	**Other lands					
2014	Owned or managed lands					
	**Other lands					
2015	Owned or managed lands					
	**Other lands					
2016	Owned or managed lands					
	**Other lands					
2017	Owned or managed lands					
	**Other lands					
2018	Owned or managed lands					
	**Other lands					

\*The *Total acres restored or maintained as GT habitat* should be the sum of the preceding 4 columns.

\*\*Other gopher tortoise habitat/lands can include ANY lands regardless of ownership, protection level, or agreement.

#### d) Land Conservation

- i) Describe the type of acquisitions, easements and other conservation protection of gopher tortoise habitat.

Table 3. New acres of potential gopher tortoise habitat protected

Report year	Public conservation lands	Private lands under permanent conservation easement	Military installation lands (buffer areas)	Other lands protected by short-term easement, MOU, or similar
2009				
2010				
2011				
2012				
2013				
2014				
2015				
2016				
2017				
2018				

- ii) Total acres of land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/temporary). If data is not available, enter “unknown”.

Table 4. Acres of land/ gopher tortoise habitat lost that is under the direct ownership of the signatory agency.

Report year	Acres lost	Cause	Permanent or Temporary
2009			

2010			
2011			
2012			
2013			
2014			
2015			
2016			
2017			
2018			

**d) Gopher tortoise population monitoring**

Table 5. Population survey data (if survey methodology was *not* Line Transect Distance Sampling, indicate what methodology was used)

Report year	Survey date	Property surveyed (name)	Acres surveyed	Population estimate	Trend (increase, decrease, juveniles, etc.)	Methodology (if not LTDS)	Viable, primary or secondary support population?
2009							
2010							
2011							
2012							

2013							
2014							
2015							
2016							
2017							
2018							

**e) Relevant Activities to Listing Factor B (Overutilization for commercial, recreational, scientific, or educational purposes)**

**a. Education and outreach specifically targeting any collection activities that may incidentally or intentionally have negative impacts on either tortoises or their burrows.**

- i. publications [signage, brochures];
- ii. Workshops and events [date, location, audience, organizer];
- iii. Public service broadcasts/announcements; or
- iv. Electronic media [website, Listserv, other internet-based outreach]

**f) Relevant Activities to Listing Factor C (Disease or predation)**

- a. Disease and die-offs (date, property/location, cause if known, number of deaths)**
- b. Disease screening efforts**
- c. Predator control**

**g) Relevant Activities to Listing Factor D (Inadequacy of existing regulatory mechanisms)**

**a. Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat)**

- i. State laws, rules and regulations
- ii. Agency policies/directives/compliance documents
- iii. Permitted takes (property/location, number of takes permitted)

**h) Relevant Activities to Listing Factor E (Other natural or manmade factors affecting the species continued existence)**

- a. Describe type(s) of projects or actions that prompted the permanent translocation or temporary relocation of gopher tortoises (in narrative form)**

Table 6. Translocation

Report year	Total number of tortoises permanently translocated	Number of GTs to protected lands	Number of GTs to unprotected lands	Number of tortoises temporarily relocated	Were GTs released into soft enclosures and held for at least 6 months?
2009					
2010					
2011					
2012					
2013					
2014					
2015					
2016					

2017					
2018					

**i) All other education and outreach not mentioned in Section III., above.**

- a. Publications [signage, brochures];
- b. Workshops and events [date, location, audience, organizer];
- c. Public service broadcasts/announcements; or
- d. Electronic media [website, Listserv, other internet-based outreach]

**j) Research studies – Conducted by or supported by agency (if published, include citation)**

**k) CCA Agency Conservation Strategy (see CCA Section 10.2)**

- a. **Deviations from CCA Agency Conservation Strategy**
- b. **New goals and strategies not included under the CCA Agency Conservation Strategy**

## APPENDIX II

**DEFINITIONS** (please see the GTCCA for a full list of definitions):

**Habitat without a designated special protection status** – applies to lands that are included in a management plan: this could consist of state public lands under a state management plan; Department of Defense installations (with a signed/approved Integrated Natural Resources Management Plan - INRMP).

**Integrated Natural Resources Management Plan (INRMP)** - a document that supports the military mission by combining a series of component plans into an ecosystem management approach and is the primary tool for managing species and their habitat on military installations.

**Long-term protection (habitat)** – applies to either privately owned lands placed under a perpetual (i.e., endless duration) conservation easement, or publicly owned lands purchased for conservation purposes where either restrictions on the acquisition funding source or government commitment (through ordinances or other regulations) would prevent or prohibit the eventual sale or development of the property.

**Protected (habitat)** – applies to any land that is protected from any future development (i.e. take of habitat).

**Short-term protection (habitat)** – applies to either privately or publicly owned lands that have some enforceable protection commitment, but those commitments do not meet the definition of "long-term protection."

**Unprotected Site (habitat)** – applies to lands that do not have any enforceable protection commitments or use restrictions that would prevent them from being modified and made unsuitable for tortoises.